CHEMICAL ENGINEERING, BSCH

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (http://catalog.okstate.edu/university-academic-regulations/ #matriculation).

Minimum Overall Grade Point Average: 2.00 Total Hours: 123

university-academic-regulations/#english-composition)ENGL 1113Composition I3or ENGL 1313Critical Analysis and Writing I3Select one of the following:3ENGL 1213Composition IIENGL 1413Critical Analysis and Writing IIENGL 3323Technical WritingAmerican History & Government3Select one of the following:3HIST 1103Survey of American HistoryHIST 1483American History to 1865 (H)HIST 1493American GovernmentPOLS 1113American GovernmentAnalytical & Quantitative Thought (A)4MATH 2144Calculus I (Q)4	Code	Title	Hours		
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ENGR 1412	Introductory Engineering Computer Programming	2
ENGR 2421	Engineering Data Acquisition Controls Lab	1
Engineering Science		
ENSC 2113	Statics	3
ENSC 2613	Introduction to Electrical Science	3
ENSC 3231	Fluids and Hydraulics Lab	1
ENSC 3233	Fluid Mechanics	3
ENSC 3313	Materials Science	3
Mathematics		
Chemistry		
CHEM 3053	Organic Chemistry I	3
Select one of the foll	owing:	5
CHEM 3153 & CHEM 3112	Organic Chemistry II and Organic Chemistry Laboratory	
BIOC 3653 & BIOC 3723	Survey of Biochemistry and Biochemistry and Molecular Biology Laboratory	
Hours Subtotal		25
Major Requirements		
Mathematics		
MATH 2233	Differential Equations	3
or MATH 3263	Linear Algebra and Differential Equations	
Chemical Engineering	,	
CHE 2023	Introduction to Chemical Engineering Thermodynamics	3
CHE 2033	Introduction to Chemical Process Engineering	3
CHE 2581	Chemical Engineering Seminar I	1
CHE 3013	Rate Operations I	3
CHE 3113	Rate Operations II	3
CHE 3123	Chemical Reaction Engineering	3
CHE 3333	Introduction to Transport Phenomena	3
CHE 3473	Chemical Engineering Thermodynamics	3
CHE 3543	Introduction to Chemical Process Analytics	3
CHE 3581	Chemical Engineering Seminar II	1
CHE 4002	Chemical Engineering Laboratory I	2
CHE 4112	Chemical Engineering Laboratory II	2
CHE 4124	Chemical Engineering Design I	4
CHE 4224	Chemical Engineering Design II	4
CHE 4581	Chemical Engineering Seminar III	1
CHE 4843	Chemical Process Instrumentation and Control	3
Hours Subtotal		45
Controlled Electives		
Advanced Chemical E	ingineering Elective	
Select 3 hours of the	following:	3
CHE 3202	Interdisciplinary Design and Build for	
& CHE 3211	Chemical Systems I and Interdisciplinary Design and Build for Chemical Systems II	
CHE 4073	Introduction to Tissue Engineering	
CHE 4073	Introduction to Tissue Engineering	
0112 4100	Photocatalysis	

CHE 4183	Drug Delivery	
CHE 4283	Bioprocess Engineering	
CHE 4293	Biomedical Engineering	
CHE 4323	Electrochemical Engineering	
CHE 4343	Environmental Engineering	
CHE 4493	Introduction to Molecular Modeling and Simulation	
CHE 4523	Introduction to Colloid Processing	
CHE 4543	Machine Learning for Chemical Processes	
CHE 4603	Introduction to Membrane Separations	
CHE 4753	Introduction to Applied Numerical Computing for Scientists and Engineers	
CHE 4773	Introduction to Computational Fluid- Particle Dynamics	
CHE 4783	Nanomaterial Synthesis and Characterization	
Restricted Electives		
Select 6 hours of upp objectives ^{1, 2}	er-level course credit meeting School	6
Hours Subtotal		9
Total Hours		123

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Cannot use both ANSI 3423 Animal Genetics & BIOL 3023 General Genetics or BIOC 3653 Survey of Biochemistry & BIOC 3713 Biochemistry I.

2

Must be 3000 level or higher. Must meet requirements for professional development, technical knowledge, or life balance. May be fulfilled by upper-division coursework as part of the pursuit of a minor at OSU.

Graduation Requirements

- 1. A minimum GPA of 2.00 is required in all CHE coursework.
- 2. Must Receive a "C" or better in the following CHE courses: CHE 2023, CHE 2033, CHE 3013, CHE 3113, CHE 3123, CHE 3333, CHE 3473, and CHE 4002.
- 3. The major engineering design experience, capstone course, is satisfied by CHE 4124 Chemical Engineering Design I and CHE 4224 Chemical Engineering Design II.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 and 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; onefourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.