AEROSPACE ENGINEERING, BSAE

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

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (http://catalog.okstate.edu/university-academic-regulations/#english-composition)		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II [1]	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
MATH 2153	Calculus II (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Course Designated (H)		3
Course Designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1414	General Chemistry for Engineers (LN) [1]	4
or CHEM 1515	Chemistry II (LN)	
PHYS 2014	University Physics I (LN) [1]	4
PHYS 2114 (LN)	University Physics II (LN)	4
Exploring Society & Human Behavior (S)		
Course Designated (GS)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [1]	1
MATH 2163	Calculus III [1]	3
MATH 2233	Differential Equations [1]	3
Basic Science		
Select one of the following:		3
ASTR 1013	The Solar System (N)	
ASTR 1023	Stars, Galaxies, Universe (N)	
BIOL 1113	Introductory Biology (N)	
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN) ((May not be used for degree credit with CHEM 1414))	
CHEM 3053	Organic Chemistry I	
GEOL 1114	Physical Geology (LN)	
GEOL 3413	Petroleum Geology for Engineers	
PHYS 3213	Optics	
PHYS 3313	Introduction to Semiconductor Device Physics	
PHYS 3713	Modern Physics	
Engineering and Engineering Science		
ENGR 1332	Engineering Design with CAD for MAE [1]	2
ENGR 1412	Introductory Engineering Computer Programming [1]	2
ENSC 2113	Statics [1]	3
ENSC 2123	Elementary Dynamics [1]	3
ENSC 2143	Strength of Materials [1]	3
ENSC 2213	Thermodynamics [1]	3
ENSC 2613	Introduction to Electrical Science [1]	3
Choose one of the below laboratory options: [1]		3
OPTION 1		
ENGR 2421	Engineering Data Acquisition Controls Lab	
and two more hours from the following labs:		
ENSC 2141	Strength of Materials Lab	
ENSC 2411	Electrical Science Lab	
ENSC 2611	Electrical Fabrication Lab	
ENSC 3231	Fluids and Hydraulics Lab	
ENSC 3311	Material Science Lab	
ENSC 3431	Thermodynamics and Heat Transfer Lab	
OPTION 2		
MAE 3113	Measurements and Instrumentation [2]	
Hours Subtotal		**32**
Upper Division Major Requirements [2]		
ENSC 3313	Materials Science	3
IEM 3503	Engineering Economic Analysis	3
MAE 3013	Engineering Analysis and Methods I	3
MAE 3153	Introduction to MAE Design	3
MAE 3253	Applied Aerodynamics and Performance	3
MAE 3293	Fundamentals of Aerodynamics	3
MAE 3333	Fundamental Fluid Dynamics	3
MAE 3324	Mechanical Design I	4
MAE 3403	Computer Methods in Analysis and Design	3

MAE 3724	Dynamic Systems Analysis and Introduction to Control	4
MAE 4223	Aerospace Engineering Laboratory	3
MAE 4243	Aerospace Propulsion and Power	3
MAE 4283	Aerospace Vehicle Stability and Control	3
MAE 4374	Aerospace System Design	4
MAE 4513	Aerospace Structures	3
Upper Division Elective Requirements		
3 hours of technical elective to be selected from the following list:		3
3000-level or above from:		
ENGR 3030	Co-op Industrial Practice II	
MATH 3583	Introduction to Mathematical Modeling	
or from BAE, CHE, CIVE, ECEN, IEM, MAE, PETE		
4000-level or above courses from:		
ECON 4113	Energy Economics: Traditional and Renewable Energy Markets	
ENGR 4030	Co-op Industrial Practice III	
Or from MATH, MET, or STAT		
Hours Subtotal		**51**
Total Hours		**123**

[1]

MAE requires grades of "C" or better for any course that is a pre-requisite or co-requisite to a required course on the degree plan.

[2]

Grades of "C" or higher in all Upper Division Major Requirements courses

Graduation Requirements

1. A "C" or better is required in each course taken that is designated with footnote 1 or footnote 2.
2. The major engineering design experience, capstone course, is satisfied by MAE 4374 Aerospace System Design.

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; one-fourth 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.