

COLLEGE OF ENGINEERING, ARCHITECTURE AND TECHNOLOGY

AEROSPACE ENGINEERING



WHAT IS AEROSPACE ENGINEERING?

Aerospace Engineering is the study of the science and technology of flight, and the design of air, land and sea vehicles for transportation and exploration.

WHY AEROSPACE ENGINEERING AT OSU?

The mission of Aerospace Engineering is to create a vibrant and stimulating learning and research environment and to instruct and encourage our students to reach their full potential in technical expertise, innovative expression, intellectual curiosity, and collaborative design.

HIGHLIGHTS

- Features a dual-degree option with Mechanical Engineering, with the possibility to graduate in 4 years with two accredited degrees.
- Newly started High Power Rocketry Team.
- MAE seniors can compete in Speedfest, an undergraduate aircraft design competition and exposition the only undergraduate aircraft design competition in the country to feature turbojet engines.
- Team-centric course structure and design projects.
- Senior design project options in aircraft design, aircraft structures, rocketry design, aircraft propulsion, and space habitat design.
- Engineering students have the chance to do research and work alongside professors on projects in the aerospace industry.

CAREER INDUSTRIES & FOCUS AREAS

OPTIONS

Dual degree option for mechanical and aerospace engineering.

CAREER OPPORTUNITIES

- Drilling Engineer
- RDD Engineer
- Facilities Engineer
- Design Engineer
- Mechanical Engineer
- Liaison Engineer
- Associate Technical Professional
- Project Engineer





COLLEGE OF ENGINEERING, ARCHITECTURE AND TECHNOLOGY

BACHELOR OF SCIENCE AEROSPACE ENGINEERING

Typical Four-Year Curriculum

FIRST YEAR

Fall Semester

| ENGR | 1332 | AutoCad |
|------|------|------------------------------|
| CHEM | 1414 | Chem for Engr |
| ENGR | 1111 | Intro to Engr |
| MATH | 2144 | Calc I |
| ENGL | 1113 | Comp I |
| XXXX | XXXX | "S"/ "D" / "I"/ "H" Elective |

Spring Semester

| ENGR | 1412 | Intro to Comp Progm |
|------|------|---------------------|
| PHYS | 2014 | Physics I |
| MATH | 2153 | Calc II |
| ENGL | 1213 | Comp II |
| HIST | 1103 | Survey of Am Hist |

SECOND YEAR

Fall Semester

| ENISC | 2113 | Statics |
|-------|------|------------|
| DUVC | 2113 | Dhusies |
| PHIS | 2114 | Physics II |
| ENSC | 2213 | Thermo |
| MATH | 2163 | Calc III |
| MATH | 2233 | Diff Eq |

Spring Semester

| ENSC | 2123 | Dynamics |
|------|------|-----------------------------|
| ENSC | 2143 | Strengths of Mats |
| ENSC | 3233 | Fluids |
| ENSC | 2613 | Intro to Electrical Science |
| POLS | 1113 | Am Govt |
| XXXX | XXXX | "S"/"D"/"I"/"H" Elective |

THIRD YEAR

Fall Semester

| ENSC | 3313 | Material Science |
|------|------|---------------------------|
| IEM | 3503 | Engr Economic Analysis |
| MAE | 3323 | Mechanical Design I |
| MAE | 3293 | Fundamentals of Aero |
| MAE | 3013 | Engr Analysis & Methods I |

Spring Semester

| MAE | 3113 | Measurements & Instrumentation |
|------|------|--------------------------------|
| MAE | 3403 | Comp Methods Analysis & Design |
| MAE | 3253 | Applied Aerodyms & Performance |
| MAE | 3723 | Systems Analysis |
| XXXX | XXXX | Basic Science Elective |

FOURTH YEAR

Fall Semester

| MAE | 4513 | Aerospace Structures I |
|------|------|----------------------------------|
| MAE | 4243 | Aerospace Propulsion & Power |
| MAE | 4283 | Aero Vehicle Stability & Control |
| MAE | XXXX | Controlled Elective |
| XXXX | XXXX | "S"/ "D" / "I"/ "H" Elective |

Spring Semester

| MAE | 4374 | Aerospace System Design |
|------|------|----------------------------------|
| MAE | 4223 | Aerospace Engineering Laboratory |
| MAE | XXXX | Controlled Elective |
| XXXX | XXXX | "S"/ "D" / "I"/ "H" Elective |

TOTAL HOURS: 123

Accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.





This course plan is for general guidance only. An official course plan will be provided upon enrollment.

Contact | ceat.recruitment@okstate.edu | (405)-744-5279