



COLLEGE OF  
ENGINEERING, ARCHITECTURE  
AND TECHNOLOGY

# AERO AEROSPACE ENGINEERING



## WHAT IS AEROSPACE ENGINEERING?

Aerospace Engineering is the study of the science and technology of flight; focusing on the design, development, testing, and production of air, land and sea vehicles for transportation and exploration.

## WHY AEROSPACE ENGINEERING AT OSU?

Students in Aerospace Engineering at OSU endure intensive academic programs and gain hands-on experience with exciting projects, preparing them for careers after graduation. Whether students are racing aircraft vehicles through the sky, blasting off rockets, or other capstone projects; they are able to take theories learned in the classroom and apply them to real-world situations.

## 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

- Aerospace Engineer
- Mechanical Engineer
- Product Engineer
- Design Engineer
- Research and Development Engineer
- Manufacturing Engineer
- Process Engineer
- Project Engineer
- Product Safety Engineer
- Propulsion Engineer
- Structural Engineer
- Test Engineer
- Repair Development Engineer
- Aircraft Systems Engineer



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# Typical Four-Year Curriculum

**FIRST YEAR****Fall Semester**

CHEM	1414	Chem for Engr
ENGL	1113	Comp I
ENGR	1111	Intro to Engr
ENGR	1332	CAD/SolidWorks
MATH	2144	Calc I

Social &amp; Behavioral Studies (S, D, I)

**Spring Semester**

ENGL	1213	Fresh Comp II
ENGR	1412	Intro Eng Computer Prgm
ENGR	2421	Data Acq Ctrl Lab
HIST	1103	American Hist
MATH	2153	Calc II
PHYS	2014	Physics I

**SECOND YEAR****Fall Semester**

ENSC	2113	Statics
ENSC	2213	Thermo
MATH	2163	Calc III
MATH	2233	Differential Eq
PHYS	2114	Physics II

**Spring Semester**

ENSC	2123	Dynamics
ENSC	2141	Strength of Materials Lab
ENSC	2143	Strength of Materials
ENSC	3231	Fluids and Hydraulics Lab
MAE	3153	Intro ME Design
MAE	3333	Fluids

**THIRD YEAR****Fall Semester**

ENSC	2613	Circuits
ENSC	3313	Material Science
MAE	3013	Engr Analysis
MAE	3293	Fund of Aero

Tech Elective (3)

**Spring Semester**

MAE	3253	App Aero
MAE	3324	Mech Des I
MAE	3403	Comp Meth
MAE	3724	Sys Analysis
POLS	1113	Amer Govt

**FOURTH YEAR****Fall Semester**

Basic Science Elective (3)		
IEM	3503	Engr Econ
MAE	4243	Prop & Power
MAE	4283	Stab & Ctrl
MAE	4513	Aero Structrs

**Spring Semester**

Humanities Elective (3) (H, D, I)		
Humanities Elective (3) (H, D, I)		
MAE	4374	Aero Design
MAE	4223	Aero Lab

**TOTAL HOURS: 123**

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



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

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