

The Minor in Aerospace Engineering

Whether students are intent on a career in aviation or simply enthusiastic about space and flight, a minor in aerospace engineering can satisfy their scientific curiosity, prepare them for a job, or uncover opportunities for technical contributions. The minor in aerospace engineering is available to all undergraduates, but it is most attractive to those pursuing a degree in mechanical engineering. The minor in aerospace engineering requires a minimum of 15 units of courses selected from the list below; it is possible to earn the minor without increasing the number of units (120) required for the Bachelor of Science in Mechanical Engineering (BSME).

Aerospace engineering deals with the analysis, design and performance of flight vehicles such as transport and military aircraft, helicopters, missiles and launch vehicles, and spacecraft. Students learn about aerospace engineering by taking courses in aerodynamics, aircraft flight dynamics and control, aerospace propulsion, aerospace structures and aerospace vehicle design. Students may also have the opportunity to gain experience in aerospace engineering design through collaborative programs with local companies such as Boeing. Aerospace engineers from industry teach courses as adjunct instructors at Washington University, and many Washington University faculty members have extensive aerospace industry experience.

Units required: 15

Required courses (6 units):

Code	Title	Units
MEMS 4301	Modeling, Simulation and Control	3
or ESE 441	Control Systems	
MEMS 5700	Aerodynamics	3
Total Units		6

Core courses (3-6 units):

Code	Title	Units
MEMS 5701	Aerospace Propulsion	3
MEMS 5704	Aircraft Structures	3

Electives (3-6 units):

Any course from the aerospace MS concentration list (PDF) can be used as an aerospace minor elective.

To find out more about this minor, contact the department chair or the advisor for the minor in aerospace engineering, or visit the Minors page of the Mechanical Engineering & Materials Science website.