Aerospace Engineering

The department of aerospace engineering offers programs leading to Master of Science (MS) and Doctor of Philosophy (PhD) degrees. Faculty research provides valuable educational opportunities for graduate students. Current research topics include acoustics, aeroelasticity, aerothermodynamics, aircraft dynamic loads, aircraft flight dynamics, aircraft icing, airfoil design and rotor aerodynamics, artificial neural networks, composite materials, computational fluid dynamics, computational solid mechanics, continuum damage and fracture mechanics, damage tolerance, design, experimental aerodynamics, finite element analysis, flight dynamics and control, flight mechanics, hypersonics, intelligent control, laser velocimetry, solid mechanics, structural dynamics, and theoretical and applied aerodynamics.

The department's research and instructional facilities are among the finest in the nation. They include an astronautics lab, four wind tunnels, a water tunnel, a flight simulation lab, a structural testing lab, a small-aircraft prototype lab, a propulsion lab and a controls lab. Graduate students have opportunities to use the equipment in all laboratories for their research projects. Students also may use the research facilities in the university's National Institute for Aviation Research, including a composite materials lab and a crash dynamics lab. Computer facilities for students include mainframe terminals, high performance workstations and various personal computers.

The department's programs are enhanced by Wichita's aviation heritage and the presence of major aerospace companies in the city, including Airbus, Bombardier Aerospace, Spirit AeroSystems and Textron Aviation (Beechcraft and Cessna).

Graduate coursework is scheduled so that engineers employed in the local industry may conveniently pursue graduate degrees.

Programs in Aerospace Engineering

- PhD in Aerospace Engineering (http://catalog.wichita.edu/graduate/engineering/aerospace-engineering/phd-in-aerospace-engineering/)
- MS in Aerospace Engineering (http://catalog.wichita.edu/graduate/engineering/aerospace-engineering/ms-in-aerospace-engineering/)

Courses in Aerospace Engineering

- Aerospace Engineering (AE) (http://catalog.wichita.edu/graduate/courses/ae/)

Note: All graduate courses must be approved in advance of enrollment by a student's graduate advisor.