MS in Aerospace Engineering

Courses of study leading to the MS degree are available with specialization in any of the following four fields:

- Aerodynamics and fluid mechanics;
- Structures and solid mechanics;
- Flight dynamics and control; and
- Multidisciplinary analysis and design.

Program Requirements

Students must complete the following requirements:

Course	Title	Hours
AE Core Options		
Select one of the following groups of core classes based on student's chosen specialty [1]		9
Aerodynamic and Fluid Mechanics		
AE 711	Intermediate Aerodynamics	
AE 716	Compressible Fluid Flow	
AE 812	Aerodynamics of Viscous Fluids	
Structures and Solid Mechanics		
AE 722	Finite Element Analysis of Structures I	
AE 731	Theory of Elasticity	
AE 777	Vibration Analysis	
Flight Dynamics and Controls		
AE 707	Modern Flight Control System Design I	
AE 714	Advanced Flight Dynamics I	
AE 773	Intermediate Dynamics	
Multidisciplinary Analysis and Design (see advisor for details)		
Select one graduate-level course in mathematics/statistics with the approval of the department		3
Terminal Options		
Select one of the following options		18-21
Thesis Option		
Select four other graduate-level classes with the approval of the advisor		
AE 876	Thesis (a minimum of 6 credit hours)	
Directed Project Option		
Select six other graduate-level courses with the approval of the advisor [3]		
AE 878	MS Directed Project (minimum of 3 credit hours)	
Coursework Option		
Select seven other graduate-level courses with the approval of the advisor [3]		
Pass an exam covering the core courses in the area of specialty [2]		
Total Credit Hours		**30-33**

1. Other graduate-level courses may be substituted for any of these nine courses that have been taken as a part of the undergraduate program.
2. The coursework option exam is offered three times a year. Contact the MS program coordinator to confirm scheduled dates and to register to take the exam (at least 30-days prior to scheduled exam date).
3. No more than 12 credit hours of coursework may be taken outside aerospace engineering.

See College of Engineering (http://catalog.wichita.edu/graduate/engineering/#graduationrequirementstext) for requirement details.

Graduate Courses

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

Applied Learning

Students in the MS in aerospace engineering program are required to complete an applied learning or research experience to graduate from this program.

For students choosing the thesis option, the requirement can be met by completing AE 876.

For students choosing the directed project option, the requirement can be met by completing AE 878.

For students choosing the coursework option, students must also successfully complete an Applied Learning Activity (ALA) by enrolling in a 0-credit hour applied learning course with an AE professor.