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

<table>
<thead>
<tr>
<th>AE Core Options</th>
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<tr>
<td>Select one of the following groups of core classes based on student’s chosen specialty</td>
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**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

AE 878 MS Directed Project (minimum of 3 credit hours)

**Coursework Option**

Select seven other graduate-level courses with the approval of the advisor

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).

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