AERO SPACE ENGINEERING
- MASTER OF SCIENCE IN AEROSPACE ENGINEERING

Students may select one of two options for completing their MS degree. Selection of a particular option must be made during the first semester of study in conjunction with selecting a permanent adviser.

**Thesis Option**

**Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME 570</td>
<td>Engineering Analysis I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select at least 18 credits of AE graduate courses</td>
<td>18</td>
</tr>
<tr>
<td>AE 509</td>
<td>Individualized Study</td>
<td>3</td>
</tr>
<tr>
<td>AE 510</td>
<td>Special Topics</td>
<td>6</td>
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</tbody>
</table>

Total Credits: 30

1. Up to 6 credits of ME graduate courses may be substituted with the approval of the Graduate Coordinator. All courses must be 500 level or above.

2. Special topics courses offered formally on a one time basis.

**Publication Requirement:** a refereed conference paper accepted or a refereed journal article in review or accepted by graduation. The MS thesis can be a reformatted version of this paper. Exceptions may be made on a case by case basis by the department head.

**Coursework Option**

**Requirements**

<table>
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<th>Credits</th>
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<td>ME 570</td>
<td>Engineering Analysis I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Core Courses**

Select one core course from 4 of the 5 following topic areas: 12

- **Space Dynamics**
  - AE 562 Astrodynamics

- **Aerodynamics**
  - Select one from the following:
    - ME 530 Intermediate Fluid Mechanics
    - ME 533 Computational and Theoretical Fluid Mechanics
    - AE 552 Introduction to Gasdynamics

- **Structural Dynamics and Control**
  - Select one from the following:
    - ME 512 Vibrations
    - AE 527 Control of Mechanical Systems
    - AE 566 Aeroelasticity

- **Mechanics**
  - Select one from the following:
    - ME 502 Elasticity I
    - ME 504 Continuum Mechanics

**Engineering Analysis**

Select one from the following:

<table>
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<th>Credits</th>
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<tbody>
<tr>
<td>ME 518</td>
<td>Finite Element Analysis</td>
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**Additional Requirements**

Select 4 additional AE courses (500 level or above) from the following: 12

- Core Courses listed above
- Research Area Courses
  - AE 509 Individualized Study
  - AE 510 Special Topics

Select one course (500 level or above) from related areas 4 3

Total Credits: 30

3. Graduate ME courses may be substituted for AE courses with the approval of the Graduate Program Coordinator.

4. If course is not in AE or ME program, approval of the Graduate Program Coordinator is required.

**Selection of MS Option and Permanent Adviser**

Newly admitted graduate students will be assigned a temporary advisor for the first semester, but they must select a degree option and permanent advisor before registering for the second semester.

In considering a decision about option and advisor, the student should arrange to meet with several members of the graduate faculty during the first six weeks of study to discuss specific educational objectives. The student can use these meetings to become familiar with faculty interests and research projects currently in progress. The faculty member must agree (in writing) to serve as the student's advisor.

All students must pass a final examination. The final examination is to be conducted by the student's advisory committee and is taken after completing all coursework and thesis work for the thesis option, or all coursework for the course-only option.