# GENERAL REQUIREMENTS

<table>
<thead>
<tr>
<th>Minimum Total Hours (Non-Thesis)</th>
<th>36</th>
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<tbody>
<tr>
<td>Minimum Total Hours (Thesis)</td>
<td>30</td>
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## REQUIRED COURSES

**Required Courses (Thesis 30 hours; Non-Thesis 36 hours):**

**Mathematics/Advanced Engineering Analysis:** 3

Graduate-level coursework in mathematics or advanced engineering analysis.

**Aerospace and Mechanical Engineering:**

AME courses at the 5000 level or higher.

For thesis students, no more than 3 hours in Special Projects, Guided Individual Studies, or other non-competitively graded enrollments. 12

For non-thesis students, AME hours may include up to 3 hours Special Projects and up to 3 hours Guided Independent Studies. (Students who elect a 2-hour laboratory course may include 1 additional hour of either of these individual instruction enrollments.) 18-21

**Electives:**

Approved graduate-level courses chosen from other fields of engineering, the physical sciences, and mathematics; or AME courses, including G4000-level courses not required for the B.S. degree in the major field.

Thesis students who elect a 2-hour laboratory course may include 1 additional hour of Special Projects of Guided Individual Studies in their program. 9

For non-thesis students, the 12 hours may include up to 3 hours of additional enrollment in non-competitively graded courses, and up to 6 hours of G4000-level AME courses not required for the B.S. degree in the major field. 12-15

**AME 5980 Research for Master’s Thesis (Thesis students only)** 6

The master’s degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master’s degree must carry graduate credit.

Master’s degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 32 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master’s degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

AME 5493 Space Sciences and Astrodynamics and up to six (6) hours of graduate-level AME electives may be double-counted (shared) between the B.S. and the M.S. degrees. All should be taken during the 4th year.

The requirements listed on this degree check sheet apply to the following concentrations in Mechanical Engineering.

- Combustion: F675/Q126
- Controls: F675/Q151
- Fluid Mechanics: F675/Q256
- Heat Transfer: F675/Q321
- Mechanical Engineering General: F675/Q448
- Solid Mechanics: F675/Q618

A student who has done satisfactory graduate work and has earned a 3.0 grade point average may file for master's candidacy.