# Applied Engineering

**M.S.A.E. (Energy Science Concentration)**

## Degree Requirements: 30 Credit Hours (Thesis Track), 30 Credit Hours (Non-Thesis Track)

Total Hours: Thesis Track 24 + 6 hours thesis

Non-Thesis Track 30 hours

## Admission Requirements

### Regular
1. Completed requirements for the Bachelor’s degree at a college or university accredited by the proper regional accrediting association.
2. An undergraduate degree or the equivalent in the proposed or closely related field of study.
3. A 2.75 (4.0 scale) cumulative grade point average or higher on courses in undergraduate work, or equivalent.
4. International students must meet College of Graduate Studies English Proficiency requirements.
5. The Master of Science in Applied Engineering program with an Information Technology concentration requires: a) a bachelor’s degree in computer sciences, information systems, information technology, or related field and a minimum of 2-years of work experience in IT or related field; or b) a bachelor’s degree and a least 4-years of work experience in IT or related field; or c) permission of the Graduate Program Director.

### Provisional
A student may be granted provisional admission based upon the recommendation of the Master of Science in Applied Engineering Graduate Coordinator or department chair.

### Non-Degree
Non-degree students are accepted on an individual basis as space is available.

## Program Concentrations

A minimum of 50% of courses for the Master of Science in Applied Engineering degree must be taken at or above the 6000 level.

## Degree Requirements

### Thesis Track, 30 Credit Hours

<table>
<thead>
<tr>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td><strong>MATH 5530G</strong> Mathematics for Scientists and Engineers</td>
</tr>
<tr>
<td><strong>MENG 7137</strong> Principles of Modeling and Simulation</td>
</tr>
<tr>
<td><strong>TMAE 7136</strong> Mechatronics I</td>
</tr>
<tr>
<td><strong>TMAE 7530</strong> Research in Applied Engineering</td>
</tr>
<tr>
<td>Restricted Elective courses at or above the 5000 level as contracted with the faculty advisor and degree coordinator</td>
</tr>
<tr>
<td><strong>TMAE 7999</strong> Thesis</td>
</tr>
</tbody>
</table>

### Other Thesis Track Requirements

- Comprehensive Exam

### Total Credit Hours

30

### Non-Thesis Track, 30 Credit Hours

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</tr>
<tr>
<td><strong>TMAE 7891</strong> Independent Study</td>
</tr>
</tbody>
</table>

### Other Non-Thesis Track Requirements

- Comprehensive Exam

### Total Credit Hours

30

## Thesis

Each candidate for the Master of Science in Applied Engineering Thesis Track degree must complete a thesis on a subject approved by the graduate thesis committee. The major professor supervises the research, directs the writing of the thesis, and approves the thesis in its final form. Prior to the final approval, the thesis is read by the thesis committee. One member, termed the second reader, has responsibility for an intensive and rigorous criticism of the thesis and a third member of the thesis committee has the responsibility of an “editorial reader.” Both second and third readers must report all comments to the major professor. The thesis must be defended in an oral examination before the graduate committee prior to final approval and sign-off.

The style and format for the completed thesis shall follow that prescribed by the Director for the Master of Science in Applied Engineering degree.

Procedural steps in the preparation of the thesis are as follows:

- The prospectus for the thesis shall be submitted to the major professor and thesis committee for approval.
- The thesis must be electronically submitted to the ETD site for format check by the final thesis submission deadline as stated in the University Calendar.
- The final corrected thesis must be electronically submitted to the ETD site by the ETD format check submission deadline as stated in the University Calendar. The final document must be electronically approved by the Thesis Committee.

Advisement

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