MECHANICAL ENGINEERING
ASSOCIATE OF SCIENCE

<table>
<thead>
<tr>
<th>GENERAL EDUCATION REQUIREMENTS</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMMUNICATION</strong></td>
<td>9</td>
</tr>
<tr>
<td>ENGL 1010: English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1020: English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2025: Fundamentals of Communication or any approved speech/communication general education course****</td>
<td>3</td>
</tr>
<tr>
<td><strong>HUMANITIES &amp; FINE ARTS (minimum 1 course in literature)</strong></td>
<td>9</td>
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<tr>
<td>Any approved humanities or fine arts general education course</td>
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<tr>
<td>Any approved humanities or fine arts general education course</td>
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<tr>
<td>(literature) Any approved humanities literature general education course</td>
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<tr>
<td><strong>SOCIAL/BEHAVIORAL SCIENCES</strong></td>
<td>6</td>
</tr>
<tr>
<td>Any approved Social/Behavioral Sciences general education course*</td>
<td>3</td>
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<tr>
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<td>3</td>
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<tr>
<td><strong>HISTORY</strong></td>
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<tr>
<td>Any approved History general education course**</td>
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<tr>
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<tr>
<td><strong>NATURAL SCIENCES</strong></td>
<td>8</td>
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<tr>
<td>PHYS 2110: Calculus-based Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2120: Calculus-based Physics II</td>
<td>4</td>
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<tr>
<td><strong>MATHEMATICS</strong></td>
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</tr>
<tr>
<td>MATH 1910: Calculus I</td>
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</tr>
<tr>
<td><strong>GENERAL EDUCATION TOTAL</strong></td>
<td>42</td>
</tr>
<tr>
<td><strong>AREA OF EMPHASIS REQUIREMENTS (Major)</strong></td>
<td></td>
</tr>
<tr>
<td>MATH 1920: Calculus II</td>
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<tr>
<td>MATH 2110: Calculus III</td>
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<tr>
<td>MATH 2010: Introduction to Linear Algebra***</td>
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</tr>
<tr>
<td>MATH 2120: Differential Equations</td>
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</tr>
<tr>
<td>CHEM 1110: General Chemistry I</td>
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</tr>
<tr>
<td>ENGR 2110: Statics</td>
<td>3</td>
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<tr>
<td>ENGR 2120: Dynamics</td>
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<tr>
<td><strong>FOREIGN LANGUAGE</strong></td>
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<td><strong>ELECTIVES (unspecified)</strong></td>
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<tr>
<td><strong>AREA OF EMPHASIS REQUIREMENTS &amp; ELECTIVES TOTAL</strong></td>
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<tr>
<td><strong>DEGREE TOTAL</strong></td>
<td>65</td>
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**NOTES:**

*NOTE: Students transferring to UTK or University of Memphis should take Macroeconomics as one of their Social/Behavioral Science general education courses.

**NOTE: Students transferring to UTC will need to complete at least one course in non-Western Cultures

***NOTE: Students transferring to UT-Chattanooga will need to take both a Linear Algebra course and Introductory Statistics course. MATH 2010: Introduction to Linear Algebra is not required at U of Memphis and UT-Knoxville and U of Memphis does not require Calculus Based Probability and Stats MATH 2050.
***NOTE: UTC does not require a speech course, so students may complete another general education requirement outlined in the department's curriculum.

NOTES: Students are strongly encouraged to complete a course in Mechanics of Materials, also known as Strength of Materials, before transferring to a university. Courses in engineering technology do not fulfill any of the requirements for the Area of Emphasis in Mechanical Engineering. Although it is possible to complete the B.S. Degree in Mechanical Engineering in four semesters after earning the associate's degree, students typically need five or six semesters to complete requirements.

NOTE: Mechatronics- The Mechanical Engineering TTP also fulfills the preparatory coursework for the BS in Mechatronics at MTSU. TTU has a Mechatronics Concentration in Electrical Engineering; TTU does not have a standalone Mechatronics BS.