## Suggested Curriculum

This should be used as a guide only. Semester offerings are subject to change.

<table>
<thead>
<tr>
<th>Year</th>
<th>Autumn</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MATH 1151 (Calculus 1) ..................................................................</td>
<td>MATH 1172 (Engineering Math A) ........................................ 5 hr</td>
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<tr>
<td></td>
<td>PHYSICS 1250 (Mechanics, Thermal, Waves) ....................................</td>
<td>CHEM 1250 (Gen Chem for Engineers) ..................................... 4 hr</td>
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<tr>
<td></td>
<td>ENGR 1181 (Fundamentals of Engr 1) ...........................................</td>
<td>ENGR 1182 (Fundamentals of Engr 2) ...................................... 2 hr</td>
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<td>ENGR 1100.13 (ME Survey) ................................................................</td>
<td>General Education (Writing Level 1) ................................... 3 hr</td>
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<td>General Education ...........................................................................</td>
<td>General Education ...................................................................</td>
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<tr>
<td>2</td>
<td>MATH 2173 (Engineering Math B) ...................................................</td>
<td>MATH 2174 (Lin Alg &amp; Diff Eq)* ........................................... 3 hr</td>
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<tr>
<td></td>
<td>PHYSICS 1251 (E&amp;M, Optics, Modern Phys) .....................................</td>
<td>MECHENG 2020 (Mechanics of Materials)* ................................ 3 hr</td>
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<td>MECHENG 2010 (Statics) ..............................................................</td>
<td>MECHENG 2030 (Dynamics)* ................................................... 3 hr</td>
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<td>ISE 2040 (Engineering Economics)* .............................................</td>
<td>MECHENG 2900 (Intro to Design in ME) ................................... 3 hr</td>
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<td>STAT 3450 (Stat Methods for Engineers)* .......................................</td>
<td>MECHENG 2850 (Numerical Methods) ........................................ 3 hr</td>
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<td>General Education ...........................................................................</td>
<td>MATSCEN 2010 (Intro Engineering Materials)* ........................ 3 hr</td>
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<td>3</td>
<td>ECE 2300 (Circuits)* .....................................................................</td>
<td>MECHENG 3360 (Sys Integration &amp; Control) ................................ 3 hr</td>
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<td>MECHENG 3260 (System Dynamics) ..................................................</td>
<td>MECHENG 3503 (Intro to Fluid Mechanics) ................................ 3 hr</td>
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<td>MECHENG 3501 (Thermodynamics) ....................................................</td>
<td>MECHENG 3671 (Dsgn Analysis Mach Elm 2) ................................ 3 hr</td>
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<td>MECHENG 3670 (Dsgn Analysis Mach Elm 1) .......................................</td>
<td>MECHENG 3870 (Msmts &amp; Data Analysis) .................................... 3 hr</td>
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<td>General Education (Writing Level 2 - 2367) ..................................</td>
<td>General Education ...................................................................</td>
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<tr>
<td>4</td>
<td>ME 4510 (Heat Transfer) ..................................................................</td>
<td>ME 490X.02 (Capstone Design 3) .......................................... 2.5 hr</td>
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<td>ISE 4500 (Mfg Process Engineering) ...............................................</td>
<td>ME 4870 (Capstone Laboratory) ............................................ 2 hr</td>
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<td>ME 4900 (Capstone Design 1) ........................................................</td>
<td>Technical Elective ..................................................................... 3 hr</td>
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<td>ME 490X.01 (Capstone Design 2) ....................................................</td>
<td>Technical Elective ..................................................................... 3 hr</td>
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Total hours to complete the degree program = 131

*These required courses can be taken without being in the Mechanical major
† BIOLOGY 2100 (4 hours), CHEM 2000-level (3 hours or more) or above, and ANATOMY 2200 can substitute for MATSCEN 2010.

All students must satisfy a 32 credit hour minimum for math and basic sciences. Students with high math or science placements and transfer students without credit for lower courses should consult with the MAE academic advisors to ensure this minimum is met. Such students may be required to take extra coursework to meet graduation requirements.

## Acceptance Criteria

Formal application to the major is required. Prerequisite courses to the major are English 1110.xx and the EPHR courses listed below. In order to be eligible to apply to the major students must have a minimum 2.8 EPHR; however, this minimum does not guarantee acceptance to the major. Acceptance into the Mechanical Engineering major is based on a numerical ceiling per year. It is competitive, based solely on a student’s EPHR. Email maeadvisor@osu.edu for more information.

Students entering major AU15/SP16: EPHR courses are CHEM 1250; ENGR 1181, 1182; MATH 1151, 1172, 2173; MECHENG 2010; PHYSICS 1250, 1251; or their equivalents.

Students entering major AU16/SP17: EPHR courses are CHEM 1250; ENGR 1181, 1182; MATH 1172, 2173; MECHENG 2010; PHYSICS 1250, 1251; STAT 3450; or their equivalents.
Program Options

Technical and Other electives
- Minimum of 12 credit hours total.
- Please contact an MAE academic advisor or visit mae.osu.edu for technical elective program details and lists.

Capstone Courses 2 and 3 (choose one):
- 4901.01, 4901.02: General Projects
- 4902.01, 4902.02: Student Design Competitions
- 4903.01, 4903.03: Industry Projects
- 4904.01; 4904.02: Humanitarian Projects
- 4905.01; 4905.02: Assistive Devices

General Education Requirement

Writing and Communication
- English 1110.xx 3 hr
- Second Writing Course 3 hr

Social Science
- Only one course per Social Science group may count.
- 3 hr
- 3 hr

Literature
- 3 hr

Visual and Performing Arts
- 3 hr

Historical Study
- 3 hr

Second Historical Study or Cultures and Ideas
- 0 / 3 hr

Social Diversity in the United States
- Course may overlap with another general education category.
- 0 / 3 hr

Ethics
- Course may overlap with another general education category.
- 0 / 3 hr

Foreign Language

Pre-approved substitutions
A. Credit (including EM) for a foreign language sequence through 1103, or credit for a foreign language course with a prerequisite of 1103, can be substituted for one Gen Ed course requirement as a Cultures & Ideas.
B. Completion of a foreign language minor can be substituted for two Gen Ed courses: one course as a Social Science, (Individuals & Groups or Organizations & Polities subgroups only) and one course as either a Literature or a Cultures & Ideas.

Parameters: Students must choose either Substitution A OR Substitution B. Both substitutions cannot be applied simultaneously.

University Capstone (Cross-Disciplinary Seminar)

Pre-approved substitutions
Completion of a Social Science 3597 or 4597 can be substituted for a Social Science general education course in any group. Completion of an Arts & Humanities 3597 or 4597 can be substituted for a Visual/Performing Arts general education course.

See the list of approved general education courses for additional details: www.advising.engineering.osu.edu.