The program of courses listed below satisfies the ABET accreditation criteria of 32 credits of mathematics and basic sciences, 32 credits of engineering sciences, and 16 credits of engineering design. Any deviations must be approved by the student's advisor, department chair, and dean. The University General Education Core and graduation requirements for Engineering are included.

**ALL COURSES MUST BE TAKEN FOR LETTER (A - F) GRADES**

<table>
<thead>
<tr>
<th>FRESHMAN</th>
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<tbody>
<tr>
<td>ME 113</td>
</tr>
<tr>
<td>Math 241 (FS)</td>
</tr>
<tr>
<td>Chem 161 (DP)</td>
</tr>
<tr>
<td>Chem 161L (DY)</td>
</tr>
<tr>
<td>Eng 100 (FW)</td>
</tr>
<tr>
<td>Math 190</td>
</tr>
<tr>
<td>H Focus (1)</td>
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</table>

<table>
<thead>
<tr>
<th>SOPHOMORE</th>
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<tbody>
<tr>
<td>Math 242</td>
</tr>
<tr>
<td>Phys 170 (DP)</td>
</tr>
<tr>
<td>Phys 170L (DY)</td>
</tr>
<tr>
<td>Chem 162 (DP)</td>
</tr>
<tr>
<td>Sp 251 (DA)</td>
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<tr>
<td>FG</td>
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<td>E Focus (1)</td>
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<table>
<thead>
<tr>
<th>UPPER DIVISION</th>
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<tbody>
<tr>
<td>ME 311</td>
</tr>
<tr>
<td>ME 331</td>
</tr>
<tr>
<td>ME 371 or CEE 370</td>
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<tr>
<td>ME 373</td>
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<tr>
<td>ME 375</td>
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<tr>
<td>Phys 305 or Math 407</td>
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<table>
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<tr>
<th>ELECTIVES</th>
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<tbody>
<tr>
<td>TE: Technical Electives (6 credits).</td>
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</table>

Two courses that can be selected from ME 400-level technical electives (3), one of which can be replaced with a non-ME course (3) (with approval from Dept. Chair); and a second that can be replaced with an ME 600-level course (3) (3.00 GPA minimum and approval from Dept. Chair) or ME 499 (3).

<table>
<thead>
<tr>
<th>NOTES</th>
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<tbody>
<tr>
<td>1. Please refer to General Education Core Requirements in UH Manoa Catalog for Diversification (DH, DL, DS) and FG Foundation Courses.</td>
</tr>
<tr>
<td>2. Math 251/252/253 may be substituted for Math 241-244 above.</td>
</tr>
<tr>
<td>3. Chem 181/181L may be substituted for Chem 161/161L and 162 above.</td>
</tr>
<tr>
<td>4. Writing Intensive (W) required - 5 courses (minimum of 2 in upper division). These may be met with ME 213, ME 342, ME 401, ME 402 and ME 481.</td>
</tr>
<tr>
<td>5. One course each required for Hawaiian, Asian &amp; Pacific Issues (H), Oral Communication (O) and Contemporary Ethical Issues (E). Some of these may be met with ME 401 (E) and ME 482 (O).</td>
</tr>
</tbody>
</table>

A grade of 'C' or better is required in ME 311 prior to registration in ME 312 and ME 322.

**APPROVAL FOR GRADUATION:** Initial: Date: