# Bachelor of Science in Mechanical Engineering Course Plan by Semester

## First Year

### Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111</td>
<td>College Chemistry (DLN)</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 120 or ENGR 130</td>
<td>Introduction to Engineering</td>
<td>3</td>
</tr>
<tr>
<td>UF 100</td>
<td>Intellectual Foundations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 170</td>
<td>Calculus 1 (DLM)</td>
<td>4</td>
</tr>
</tbody>
</table>

### Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 117†</td>
<td>Introduction to C++</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 211</td>
<td>Mechanics, Waves &amp; Heat (DLN)</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 211L</td>
<td>Mechanics, Waves &amp; Heat Lab (DLN)</td>
<td>1</td>
</tr>
</tbody>
</table>

### Total Credits: 17

## Second Year

### Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>PHYS 212</td>
<td>Electricity, Magnetism &amp; Optics</td>
<td>4</td>
</tr>
<tr>
<td>MATH 333</td>
<td>Differential Equations and Matrix Theory</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 210</td>
<td>Engineering Statics</td>
<td>3</td>
</tr>
<tr>
<td>UF 200</td>
<td>Civic and Ethical Foundations</td>
<td>3</td>
</tr>
<tr>
<td>ME 271†</td>
<td>Introduction to Computation for Engineers</td>
<td>1</td>
</tr>
</tbody>
</table>

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<tbody>
<tr>
<td>MATH 275</td>
<td>Multiple Variable &amp; Vector Calculus</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 220</td>
<td>Engineering Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>MSE 245</td>
<td>Introduction to Materials Science &amp; Engineering</td>
<td>3</td>
</tr>
<tr>
<td>MSE 245L</td>
<td>Introduction to Materials Science &amp; Engineering Lab</td>
<td>1</td>
</tr>
<tr>
<td>ME 302 or ENGR 320</td>
<td>Thermodynamics I</td>
<td>3</td>
</tr>
<tr>
<td>ME 105</td>
<td>Mechanical Engineering Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

### Total Credits: 16

## Third Year

### Fall Semester

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<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MATH 360 or MATH 361†</td>
<td>Engineering Statistics or Probability and Statistics*</td>
<td>3</td>
</tr>
<tr>
<td>ME 330</td>
<td>Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>ME 331</td>
<td>Fluid Mechanics Lab</td>
<td>1</td>
</tr>
<tr>
<td>ME 350</td>
<td>Engineering Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 240</td>
<td>Introduction to Circuits</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 202</td>
<td>Technical Communication (DLS)</td>
<td>3</td>
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<tbody>
<tr>
<td>ME 380†</td>
<td>Kinematics &amp; Machine Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ME 320</td>
<td>Heat Transfer</td>
<td>3</td>
</tr>
<tr>
<td>ME 310</td>
<td>Experimental Methods Lab (CID)</td>
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<tr>
<td>ME 352</td>
<td>Machine Design I</td>
<td>3</td>
</tr>
<tr>
<td>DLV</td>
<td>Visual and Performing Arts Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

### Total Credits: 16

## Fourth Year

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ME 481</td>
<td>Senior Design Project I (FF)</td>
<td>3</td>
</tr>
<tr>
<td>ME 424</td>
<td>Thermal &amp; Fluids Systems Design</td>
<td>3</td>
</tr>
<tr>
<td>ME 462</td>
<td>Machine Design II</td>
<td>3</td>
</tr>
<tr>
<td>ME</td>
<td>ME Program Elective</td>
<td>3</td>
</tr>
<tr>
<td>DLL</td>
<td>Literature and Humanities Elective</td>
<td>3</td>
</tr>
</tbody>
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<thead>
<tr>
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<tbody>
<tr>
<td>ME 483</td>
<td>Senior Design Project II</td>
<td>3</td>
</tr>
<tr>
<td>ME</td>
<td>ME Program Elective</td>
<td>3</td>
</tr>
<tr>
<td>Tech Elective</td>
<td>Upper-Division Technical Elective</td>
<td>3</td>
</tr>
<tr>
<td>DLS</td>
<td>Social Science Second Field Elective</td>
<td>3</td>
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</tbody>
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### Total Credits: 15

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* † This programming sequence is the only approved way to complete the structured programming requirement for the ME degree.

* * In this instance, either course meets the requirement.
Mechanical Engineering Curriculum Flowchart
(rev. 4/16)

<table>
<thead>
<tr>
<th>SEM 1</th>
<th>SEM 2</th>
<th>SEM 3</th>
<th>SEM 4</th>
<th>SEM 5</th>
<th>SEM 6</th>
<th>SEM 7</th>
<th>SEM 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>UF 100</td>
<td>CS 117 *</td>
<td>UF 200</td>
<td>ME 105</td>
<td>ENGL 202 (DLS)</td>
<td></td>
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<tr>
<td>ENGL 101</td>
<td>ENGL 102</td>
<td>ME 271 *</td>
<td>MATH 275</td>
<td></td>
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<td></td>
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<tr>
<td>MATH 170 (DLM)</td>
<td>MATH 175</td>
<td>MATH 333</td>
<td>ENGR 220</td>
<td>ME 330</td>
<td>ME 320</td>
<td>ME 424 (M)</td>
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<tr>
<td></td>
<td>ENGR 210</td>
<td></td>
<td>ME 302 or ENGR 320</td>
<td>ME 350</td>
<td>ME 331</td>
<td>ME 380 * (M)</td>
<td></td>
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<tr>
<td>ENGR 120 or ENGR 130</td>
<td>PHYS 211 (DLN)</td>
<td></td>
<td>MATH 360 or MATH 361</td>
<td>ME 310 (CID) (M)</td>
<td>ME 350</td>
<td>ME 481 (FF) (M)</td>
<td>ME 483 (M)</td>
</tr>
<tr>
<td>CHEM 111 (DLN)</td>
<td>PHYS 211L (DLN)</td>
<td>PHYS 212</td>
<td>MSE 245</td>
<td>ME 352 (M)</td>
<td></td>
<td>ME Program Elective</td>
<td>ME Program Elective</td>
</tr>
<tr>
<td>CHEM 111L (DLN)</td>
<td>PHYS 212L</td>
<td>MSE 245L</td>
<td>ENGR 240</td>
<td></td>
<td>DLV elective</td>
<td>DLL elective</td>
<td>DLS elective</td>
</tr>
</tbody>
</table>

KEY:
- Sciences
- Math
- Engineering Foundations
- Mechanical Engineering
- University Requirements
- Structured Programming

* Note: The only approved combination to complete the ME structured programming requirement is CS 117, ME 271, and ME 380.

(M) = ME major status required