# BSChE Requirements

## Table 1

<table>
<thead>
<tr>
<th>Physical Sciences</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Chemistry (Chem 111A, Chem 112A)</td>
<td>6</td>
</tr>
<tr>
<td>General Chemistry Laboratory (Chem 151, Chem 152)</td>
<td>4</td>
</tr>
<tr>
<td>Physics (Physics 197, Physics 198)</td>
<td>8</td>
</tr>
<tr>
<td>Organic Chemistry I (Chem 261)</td>
<td>4</td>
</tr>
<tr>
<td><strong>Unit Subtotal</strong></td>
<td><strong>22</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Biological Science</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Principles of Biology I (Biol 2960)</td>
<td>4</td>
</tr>
<tr>
<td><strong>Unit Subtotal</strong></td>
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<table>
<thead>
<tr>
<th>Mathematics &amp; Computing</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Calculus II &amp; III (Math 132, Math 233)</td>
<td>6</td>
</tr>
<tr>
<td>Differential Equations (Math 217)</td>
<td>3</td>
</tr>
<tr>
<td>Engineering Mathematics A, B (ESE 318, ESE 319)</td>
<td>6</td>
</tr>
<tr>
<td>Probability and Statistics for Engineering (ESE 326)</td>
<td>3</td>
</tr>
<tr>
<td>Computational Modeling in Energy, Environmental and Chemical Engineering (EECE 202)</td>
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<td><strong>Unit Subtotal</strong></td>
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<table>
<thead>
<tr>
<th>Chemical Engineering Core</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Introduction to Energy, Environmental and Chemical Engineering (EECE 101)</td>
<td>3</td>
</tr>
<tr>
<td>Engineering Analysis of Chemical Systems (EECE 201)</td>
<td>3</td>
</tr>
<tr>
<td>Thermodynamics I in Energy, Environmental and Chemical Engineering (EECE 203)</td>
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</tr>
<tr>
<td>Thermodynamics II in Energy, Environmental and Chemical Engineering (EECE 204)</td>
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<tr>
<td>Transport Phenomena I, II (EECE 301, EECE 302)</td>
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<tr>
<td>Transport Phenomena III: Energy Transfer Processes (EECE 303)</td>
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<tr>
<td>Mass Transfer Operations (EECE 304)</td>
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</tr>
<tr>
<td>Materials Science (EECE 305)</td>
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</tr>
<tr>
<td>Chemical Process Dynamics and Control (EECE 401)</td>
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<tr>
<td>ChE Capstone (EECE 402)</td>
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<tr>
<td>Chemical Reaction Engineering (EECE 403)</td>
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<tr>
<td>Unit Operations Laboratory (EECE 405)</td>
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<tr>
<td><strong>Unit Subtotal</strong></td>
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<table>
<thead>
<tr>
<th>Other</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Engineering electives (some of these courses can be taken outside the EECE department)</td>
<td>18</td>
</tr>
<tr>
<td>Engineering Ethics and Sustainability (Engr 4501)</td>
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<tr>
<td>Engineering Leadership and Team Building (Engr 4502)</td>
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<tr>
<td>Conflict Management and Negotiation (Engr 4503)</td>
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</tr>
<tr>
<td>Humanities and social science electives</td>
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</tr>
<tr>
<td>Technical Writing (Engr 310)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Unit Subtotal</strong></td>
<td><strong>39</strong></td>
</tr>
</tbody>
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