Bachelor of Science in Mechanical and Ocean Engineering

General Institute Requirements (GIRs)
The General Institute Requirements include a Communication Requirement that is integrated into both the HASS Requirement and the requirements of each major; see details below.

Summary of Subject Requirements

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science Requirement</td>
<td>6</td>
</tr>
<tr>
<td>Humanities, Arts, and Social Sciences (HASS)</td>
<td>8</td>
</tr>
<tr>
<td>Requirement; at least two of these subjects must be designated as communication-intensive (CI-H) to fulfill the Communication Requirement.</td>
<td></td>
</tr>
<tr>
<td>Restricted Electives in Science and Technology (REST) Requirement [can be satisfied by 2.001 and 18.03 in the Departmental Program]</td>
<td>2</td>
</tr>
<tr>
<td>Laboratory Requirement (12 units) [can be satisfied by 2.671 in the Departmental Program]</td>
<td>1</td>
</tr>
<tr>
<td>Total GIR Subjects Required for SB Degree</td>
<td>17</td>
</tr>
</tbody>
</table>

Physical Education Requirement
Swimming requirement, plus four physical education courses for eight points.

Departmental Program
Choose at least two subjects in the major that are designated as communication-intensive (CI-M) to fulfill the Communication Requirement.

Required Subjects

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.00A Fundamentals of Engineering Design: Explore Space, Sea and Earth</td>
<td>9</td>
</tr>
<tr>
<td>2.001 Mechanics and Materials I</td>
<td>12</td>
</tr>
<tr>
<td>2.002 Mechanics and Materials II</td>
<td>12</td>
</tr>
<tr>
<td>2.003[J] Dynamics and Control I</td>
<td>12</td>
</tr>
<tr>
<td>2.004 Dynamics and Control II</td>
<td>12</td>
</tr>
<tr>
<td>2.005 Thermal-Fluids Engineering I</td>
<td>12</td>
</tr>
<tr>
<td>2.016 Hydrodynamics</td>
<td>12</td>
</tr>
<tr>
<td>2.017[J] Design of Electromechanical Robotic Systems (CI-M)</td>
<td>12</td>
</tr>
<tr>
<td>2.065 Acoustics and Sensing</td>
<td>12</td>
</tr>
<tr>
<td>2.086 Numerical Computation for Mechanical Engineers</td>
<td>12</td>
</tr>
<tr>
<td>2.612 Marine Power and Propulsion</td>
<td>12</td>
</tr>
</tbody>
</table>

Restricted Electives

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.671 Measurement and Instrumentation (CI-M)</td>
<td>12</td>
</tr>
<tr>
<td>2.677 Design and Experimentation for Ocean Engineering</td>
<td>6</td>
</tr>
<tr>
<td>2.678 Electronics for Mechanical Systems</td>
<td>6</td>
</tr>
<tr>
<td>18.03 Differential Equations</td>
<td>12</td>
</tr>
</tbody>
</table>

Restricted Electives
Select one elective from the Restricted Electives list below. 1

Units in Major: 177
Unrestricted Electives: 48
Units in Major That Also Satisfy the GIRs: 36
Total Units Beyond the GIRs Required for SB Degree: 189

The units for any subject that counts as one of the 17 GIR subjects cannot also be counted as units required beyond the GIRs.

1 Consult the MechE Undergraduate Office, Room 1-110, regarding substitutions.