GENERAL ENGINEERING (COURSE 1-ENG)

Department of Civil and Environmental Engineering (http://catalog.mit.edu/schools/engineering/civil-environmental-engineering/#undergraduatetext)

Bachelor of Science in General 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.

<table>
<thead>
<tr>
<th>Summary of Subject Requirements</th>
<th>Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science Requirement</td>
<td>6</td>
</tr>
<tr>
<td>Humanities, Arts, and Social Sciences (HASS) Requirement; at least two of these subjects must be designated as communication-intensive (CI-H) to fulfill the Communication Requirement.</td>
<td>8</td>
</tr>
<tr>
<td>Restricted Electives in Science and Technology (REST) Requirement [can be satisfied by 1.00 or 1.000, and 18.03 in the Departmental Program]</td>
<td>2</td>
</tr>
<tr>
<td>Laboratory Requirement (12 units) [can be satisfied from among 1.101 and 1.102 or 1.106 and 1.107 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.

<table>
<thead>
<tr>
<th>General Department Requirements (GDRs)</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00 Engineering Computation and Data Science</td>
<td>12</td>
</tr>
<tr>
<td>or 1.000 Computer Programming for Engineering Applications</td>
<td></td>
</tr>
<tr>
<td>1.010 Introduction to Probability and Statistics in Engineering</td>
<td>12</td>
</tr>
<tr>
<td>1.013 Senior Civil and Environmental Engineering Design (CI-M)</td>
<td>12</td>
</tr>
<tr>
<td>1.073 Introduction to Environmental Data Analysis</td>
<td>6</td>
</tr>
<tr>
<td>or 1.074 Multivariate Data Analysis</td>
<td></td>
</tr>
<tr>
<td>18.03 Differential Equations</td>
<td>12</td>
</tr>
</tbody>
</table>

Core Subjects

Select one area of core coursework 54-60

Environment
- 1.060 Fluid Mechanics I
- 1.061A Transport Processes in the Environment I
- 1.070A[J] Introduction to Hydrology and Water Resources
- 1.080A Environmental Chemistry I
- 1.092 Traveling Research Environmental eXperience (TREX): Fieldwork Analysis and Communication (CI-M)
- 1.089A Earth’s Microbiomes I
- 1.106 Environmental Fluid Transport Processes and Hydrology Laboratory
- 1.107 Environmental Chemistry and Biology Laboratory

Mechanics/Materials
- 1.035 Mechanics of Materials
- 1.050 Solid Mechanics
- 1.060A Fluid Mechanics I
- 1.036 Structural Mechanics and Design
- 1.101 Introduction to Civil and Environmental Engineering Design I
- 1.102 Introduction to Civil and Environmental Engineering Design II (CI-M)

Systems
- 1.020 Engineering Sustainability: Analysis and Design
- 1.022 Introduction to Network Models
- 1.041 Transportation Systems Modeling
- 1.075 Water Resource Systems
- 1.101 Introduction to Civil and Environmental Engineering Design I
- 1.102 Introduction to Civil and Environmental Engineering Design II (CI-M)

Elective Subjects with Engineering Content
Students are required to take four Restricted Electives selected from subjects offered within or outside CEE to form a coherent program of study under supervision by CEE faculty. 48-60

Units in Major 168

Unrestricted Electives 48-60
Units in Major That Also Satisfy the GIRs (36)

Total Units Beyond the GIRs Required for SB Degree 180
The units for any subject that counts as one of the 17 GIR subjects cannot also be counted as units required beyond the GIRs.