ENGINEERING AS RECOMMENDED BY THE DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING (COURSE 1-ENG)

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

Bachelor of Science in Engineering as Recommended by the Department of Civil and Environmental 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>
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<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>Restricted Electives in Science and Technology (REST)</td>
<td>2</td>
</tr>
<tr>
<td>Laboratory Requirement (12 units)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total GIR Subjects Required for SB Degree 17

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.

General Department Requirements (GDRs)

<table>
<thead>
<tr>
<th>General Department Requirements (GDRs)</th>
<th>Units</th>
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<tbody>
<tr>
<td>1.00</td>
<td>12</td>
</tr>
<tr>
<td>or 1.000</td>
<td></td>
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<tr>
<td>1.010</td>
<td>12</td>
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<tr>
<td>1.013</td>
<td>12</td>
</tr>
<tr>
<td>1.073</td>
<td>6</td>
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<tr>
<td>or 1.074</td>
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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.

Units in Major 168
Unrestricted Electives 48

18.03 Differential Equations 12

Core Subjects
Select one area of core coursework 54-60

Environment

1.060A 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 Environmental Microbiology I
1.106 Environmental Fluid Transport Processes and Hydrology Laboratory
1.107 Environmental Chemistry and Biology Laboratory

Mechanics/Materials

1.035 Multiscale Characterization 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

Systems

1.011 Project Evaluation and Management (CI-M)
1.020 Principles of Energy and Water Sustainability
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
The units for any subject that counts as one of the 17 GIR subjects cannot also be counted as units required beyond the GIRs.