Bachelor of Science in 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>Requirement; at least two of these subjects must be designated as communication-intensive (CI-H) to fulfill the Communication Requirement.</td>
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<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>
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<tr>
<td>Total GIR Subjects Required for SB Degree</td>
<td>17</td>
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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>Units</th>
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<tbody>
<tr>
<td>12</td>
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</tbody>
</table>

Environment

| 1.018[J] Fundamentals of Ecology |
| 1.060 Fluid Mechanics |
| 1.061A Transport Processes in the Environment I |
| 1.070A[J] Introduction to Hydrology and Water Resources |
| 1.080 Environmental Chemistry |
| 1.091 Traveling Research Environmental eXperience (TREX): Fieldwork |
| 1.106 Environmental Fluid Transport Processes and Hydrology Laboratory |
| 1.107 Environmental Chemistry Laboratory (CI-M) |

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: Foundations and Methods |
| 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 at least 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

Unrestricted Electives

Units in Major That Also Satisfy the GIRs

Total Units Beyond the GIRs Required for SB Degree

The units for any subject that counts as one of the 17 GIR subjects cannot also be counted as units required beyond the GIRs.
In order to reach the 180 units beyond the GIRs required, students may need to take more than 48 units of Restricted and/or Unrestricted Electives. Direct requests for more information to cee-apo@mit.edu.