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	Subjects
Science Requirement	6
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.	8
Restricted Electives in Science and Technology (REST) Requirement [can be satisfied by 1.00 or 1.000, and 18.03 in the Departmental Program]	2
Laboratory Requirement (12 units) [can be satisfied from among 1.101 and 1.102 or 1.106 and 1.107 in the Departmental Program]	1
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)		Units
1.00	Engineering Computation and Data Science	12
or 1.000	Computer Programming for Engineering Applications	
1.010	Uncertainty in Engineering	12
1.013	Senior Civil and Environmental Engineering Design (CI-M)	12
1.073	Introduction to Environmental Data Analysis	6
or 1.074	Multivariate Data Analysis	
18.03	Differential Equations	12
Core Subjects		
Select one area of core coursework		54-60
Environment		
1.018A[J]	Fundamentals of Ecology I	
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	
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

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.