

ENGINEERING AS RECOMMENDED BY THE DEPARTMENT OF MECHANICAL ENGINEERING (COURSE 2-A)

Department of Mechanical Engineering (<http://catalog.mit.edu/schools/engineering/mechanical-engineering/#undergraduatetext>)

Bachelor of Science in Engineering as Recommended by the Department of Mechanical 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 2.086 in the Departmental Core Subjects and one subject in the Elective Subjects with Engineering Content]	2
Laboratory Requirement (12 units) [satisfied by 2.671 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.

Required Core Subjects	Units
2.00 Introduction to Design ¹	6
2.001 Mechanics and Materials I	12
2.003[J] Dynamics and Control I	12
2.009 The Product Engineering Process (CI-M)	12
2.05 Thermodynamics	6
2.051 Introduction to Heat Transfer	6
2.06 Fluid Dynamics	6
2.086 Numerical Computation for Mechanical Engineers	12

2.087	Engineering Mathematics: Linear Algebra and ODEs	6
2.671	Measurement and Instrumentation (CI-M)	12
2.678 or 2.674	Electronics for Mechanical Systems Introduction to Micro/Nano Engineering Laboratory	6

Elective Subjects with Engineering Content

Select 72 units (must include one REST subject outside Course 2) ²	72
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.

¹ Students may also fulfill this requirement by completing an alternative 2.00X subject, i.e., 2.00B.

² These electives define a concentrated area of study which must be approved by the 2-A review committee. The concentration electives must form an engineering topic. Concentration electives must include one subject that meets the REST GIR, but not subjects that fulfill a HASS GIR. In some cases, non-engineering subjects may be necessary for the particular engineering topic defined by the concentration (e.g., management subjects for an engineering management concentration), in which case additional engineering subjects may be required to meet the engineering accreditation standards. In all cases, the relationship of concentration subjects to the engineering topic must be obvious.