

## COMPUTER SCIENCE AND ENGINEERING (COURSE 6-3)

Department of Electrical Engineering and Computer Science (<https://catalog.mit.edu/schools/engineering/electrical-engineering-computer-science/#undergraduatestudytext>)

### Bachelor of Science in Computer Science and 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 [two subjects can be satisfied by 6.3260[J] and 6.4590[J] (taken as part of a track) in the Departmental Program]; 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 6.1910 and 6.1200[J] (if taken under joint number 18.062[J]) in the Departmental Program]	2
Laboratory Requirement (12 units) [satisfied by 6.1010 in the Departmental Program]	1
<b>Total GIR Subjects Required for SB Degree</b>	<b>17</b>

#### 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.

Departmental Requirements	Units
<b>Computer Science Requirements</b>	
6.100A Introduction to Computer Science Programming in Python	6-9
or 6.100L Introduction to Computer Science and Programming	
6.1010 Fundamentals of Programming	12
6.1020 Software Construction	15
6.1200[J] Mathematics for Computer Science	12
6.1210 Introduction to Algorithms	12
6.1400[J] Computability and Complexity Theory	12

or 6.1220[J]	Design and Analysis of Algorithms	
6.1800	Computer Systems Engineering	12
6.1903	Introduction to Low-level Programming in C and Assembly	6
6.1910	Computation Structures	12
Select one of the following:		12
6.3700	Introduction to Probability	
6.3800	Introduction to Inference	
18.05	Introduction to Probability and Statistics	
18.06	Linear Algebra	
18.Co6[J]	Linear Algebra and Optimization	

#### Elective Subjects <sup>1</sup>

Select two subjects from a Computer Science track <sup>2</sup>	24
Select two subjects from a Computer Science, Artificial Intelligence + Decision Making, or Electrical Engineering track <sup>2</sup>	24
Select one subject that satisfies a degree requirement in 6-2, 6-3, 6-4, or 18	12
<b>Units in Major</b>	<b>171-174</b>
<b>Unrestricted Electives</b>	<b>48-60</b>
Units in Major That Also Satisfy the GIRs	(36-60)
<b>Total Units Beyond the GIRs Required for SB Degree</b>	<b>183-186</b>

The units for any subject that counts as one of the 17 GIR subjects cannot also be counted as units required beyond the GIRs.

<sup>1</sup> Out of the subjects taken for the Departmental Program, at least two must be from the list of Advanced Undergraduate Subjects (<https://catalog.mit.edu/degree-charts/eecs-subject-groupings/#advancedundergraduate2text>), and at least one must be from the list of Independent Inquiry (<https://catalog.mit.edu/degree-charts/eecs-subject-groupings/#independentinquirytext>) subjects.

<sup>2</sup> See EECS tracks (<https://catalog.mit.edu/degree-charts/electrical-engineering-computer-science-tracks/#computersciencetext>).