

## MECHANICAL AND OCEAN ENGINEERING (COURSE 2-OE)

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

### Bachelor of Science in Mechanical and Ocean 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 2.001 and 18.03 in the Departmental Program]	2
Laboratory Requirement (12 units) [can be satisfied by 2.671 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.

Required Subjects	Units
2.001 Mechanics and Materials I	12
2.002 Mechanics and Materials II	12
2.003[[ Dynamics and Control I	12
2.004 Dynamics and Control II	12
2.005 Thermal-Fluids Engineering I	12
2.016 Hydrodynamics	12
2.017[[ Design of Electromechanical Robotic Systems	12
2.019 Design of Ocean Systems (CI-M)	12
2.065 Acoustics and Sensing	12
2.086 Numerical Computation for Mechanical Engineers	12
2.612 Marine Power and Propulsion	12

2.670 Mechanical Engineering Tools <sup>1</sup>	3
2.671 Measurement and Instrumentation (CI-M)	12
18.03 Differential Equations	12
<b>Restricted Electives</b>	
Select one elective from the Restricted Electives list below. <sup>1</sup>	12
<b>Units in Major</b>	<b>171</b>
<b>Unrestricted Electives</b>	<b>48</b>
Units in Major That Also Satisfy the GIRs	(36)
<b>Total Units Beyond the GIRs Required for SB Degree</b>	<b>183</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> Consult the MechE Undergraduate Office, Room 1-110, regarding substitutions.

#### Restricted Electives

2.006 Thermal-Fluids Engineering II	12
2.007 Design and Manufacturing I	12
2.008 Design and Manufacturing II	12
2.092 Finite Element Analysis of Solids and Fluids I	12
2.12 Introduction to Robotics	12
2.14 Analysis and Design of Feedback Control Systems	12
2.51 Intermediate Heat and Mass Transfer	12
2.60[[ Fundamentals of Advanced Energy Conversion	12
2.700 Principles of Naval Architecture	12
2.72 Elements of Mechanical Design	12
2.96 Management in Engineering	12
2.THU Undergraduate Thesis	12