Students in the MIT Department of Biology thrive in an atmosphere that promotes exploration and collaboration across all areas of research and study. The department’s strong faculty rankings reflect that MIT Biology professors have a passion for instruction and strive to teach each course better than it’s ever been taught before. Rigorous standards and a supportive culture combine to foster a powerful environment for learning at MIT.

The department is home to approximately 200 undergraduates, 200 graduate students, 100+ postdoctoral researchers, and more than 60 world-renowned faculty, including:

- 3 Nobel laureates
- 30 members of the National Academy of Sciences
- 14 Howard Hughes Medical Institute (HHMI) investigators
- 5 recipients of the National Medal of Science

Headquartered at the Koch Biology Building 68, the activities of the department span five additional state-of-the-art research locations:

- Koch Institute for Integrative Cancer Research
- Whitehead Institute for Biomedical Research
- McGovern Center for Brain Research
- Picower Institute for Learning and Memory
- Broad Institute

The department of Biology conducts research in the following fields, and undergraduates are exposed to a broad range of these activities:

- Biochemistry and biophysics
- Bioengineering
- Cancer biology
- Cell biology
- Computational and systems biology
- Developmental biology
- Genetics
- Human genetics
- Immunology
- Microbiology
- Molecular medicine and human disease
- Neurobiology
- Plant molecular biology
- Structural biology

The undergraduate Biology program at MIT offers a robust course curriculum with an extensive lab research component, leading to a sophisticated understanding of the fundamental principles and current approaches in biology. This training provides excellent preparation for careers in such fields as:

- Academia/Research Institutions
- Medicine
- Biotechnology, biomedical and pharmaceutical industries
- Government and public policy
- Intellectual property/patent law
- Consulting/venture capital
- Science writing and communication
- Science education and outreach

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### Required Lecture Subjects

**Introductory Biology (choose one)**
- 7.012 Fall
- 7.013^ Spring
- 7.015 Fall
- 7.014 Spring
- 7.016 Spring

**Core Subjects**
- 5.111 Fall/Spring
- 5.112 Fall
- 3.091 Fall/Spring
- 5.12 Fall/Spring
- 7.03 Fall/Spring
- 7.05 Spring
- 0.507 Fall
- 7.06 Fall/Spring
- 5.601 Fall/Spring
- 5.602 Fall/Spring
- 20.110 Fall
- 2.005, 3.012^, 8.044, or 10.213 will also substitute

**Required Laboratory Subjects**
- 7.002 Fall/Spring
- 7.003 Fall/Spring

**Second CI-M**
- 7.19 Fall/Spring

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### Biology Restricted Electives

Choose three. Must be taken at the Undergraduate Level.
- 7.08J Spring: Biological Chemistry II
- 7.093^ Spring: Modern Biostatistics
- 7.094^ Spring: Modern Computational Biology
- 7.20J Fall: Human Physiology
- 7.21 Fall: Microbial Physiology
- 7.23J Spring: Immunology
- 7.26 Spring: Molecular Basis of Infectious Disease
- 7.27 Spring: Principles of Human Disease
- 7.28 Spring: Molecular Biology
- 7.29J Spring: Cellular Neurobiology
- 7.30J Fall: Fundamentals of Ecology
- 7.32 Fall: Systems Biology
- 7.33J Spring: Evolutionary Biology: Concepts, Models and Computation
- 7.371 Fall: Molecular and Engineering Principles Underlying Novel Biotherapeutics
- 7.45 Fall: The Hallmarks of Cancer
- 7.46 Fall: Building with Cells
- 7.49J Spring: Developmental Neurobiology
- 9.17 Fall: Systems Neuroscience Laboratory (CI-M)
- 9.26J Spring: Principles and Applications of Genetic Engineering for Biotechnology and Neuroscience

^Half semester subjects that together fulfill one biology restricted elective

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### Minor in Biology

512, 7.03, 7.05 (or 5.07), and 2 subjects from approved list: 7.002 & 7.003, 7.06, or any of the Restricted Electives.