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
- 31 members of the National Academy of Sciences
- 17 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

For Further Information, Contact:

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### Biology Restricted Electives

Choose three. Must be taken at the Undergraduate Level.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Term</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.080</td>
<td>Spring</td>
<td>Biological Chemistry II</td>
</tr>
<tr>
<td>7.093*</td>
<td>Spring</td>
<td>Modern Biostatistics</td>
</tr>
<tr>
<td>7.094*</td>
<td>Spring</td>
<td>Modern Computational Biology</td>
</tr>
<tr>
<td>7.203</td>
<td>Fall</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>7.21+</td>
<td>Fall</td>
<td>Microbial Physiology</td>
</tr>
<tr>
<td>7.230</td>
<td>Spring</td>
<td>Immunology</td>
</tr>
<tr>
<td>7.26</td>
<td>Spring</td>
<td>Molecular Basis of Infectious Disease</td>
</tr>
<tr>
<td>7.27</td>
<td>Spring</td>
<td>Principles of Human Disease</td>
</tr>
<tr>
<td>7.28</td>
<td>Spring</td>
<td>Molecular Biology</td>
</tr>
<tr>
<td>7.290</td>
<td>Spring</td>
<td>Cellular Neurobiology</td>
</tr>
<tr>
<td>7.303</td>
<td>Fall</td>
<td>Fundamentals of Ecology</td>
</tr>
<tr>
<td>7.32</td>
<td>Fall</td>
<td>Systems Biology</td>
</tr>
<tr>
<td>7.333</td>
<td>Spring</td>
<td>Evolutionary Biology: Concepts, Models and</td>
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<tr>
<td></td>
<td></td>
<td>Computation</td>
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<tr>
<td>7.35</td>
<td>Spring</td>
<td>Human Genetics and Cytogenetics</td>
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<tr>
<td>7.371</td>
<td>Fall</td>
<td>Molecular and Engineering</td>
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<td></td>
<td></td>
<td>Principles Underlying Novel Biotherapeutics</td>
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<tr>
<td>7.45</td>
<td>Fall</td>
<td>The Hallmarks of Cancer</td>
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<tr>
<td>7.46</td>
<td>Fall</td>
<td>Building with Cells</td>
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<tr>
<td>7.493</td>
<td>Spring</td>
<td>Developmental Neurobiology</td>
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<tr>
<td>9.17</td>
<td>Fall</td>
<td>Systems Neuroscience Laboratory (CI-M)</td>
</tr>
<tr>
<td>9.263</td>
<td>Spring</td>
<td>Principles and Applications of Genetic</td>
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<tr>
<td></td>
<td></td>
<td>Engineering for Biotechnology and Neuroscience</td>
</tr>
</tbody>
</table>

*Half semester subjects that together fulfill one biology restricted elective

### SB IN CHEMISTRY AND BIOLOGY, COURSE 5-7

An interdepartmental program offered jointly by the departments of Chemistry and Biology focuses on the intersections of these two subject areas, encompassing Biochemistry and Chemical Biology. There is flexibility in the elective subjects and the lab tracks that enables students to tailor their major program to their specific interests. For more information see chemistry.mit.edu

### SB IN COMPUTER SCIENCE AND MOLECULAR BIOLOGY, COURSE 6-7

An interdepartmental curriculum offered jointly by EECS and the Department of Biology, Course 6-7 prepares students for careers in emerging areas at the interface of biology and engineering—including bioinformatics and computational molecular biology. For more information see www.eecs.mit.edu

For interdepartmental programs, students are full members of both departments, with one academic advisor from each department.

### LABORATORY EXPERIENCE

Students gain hands-on biology laboratory research experience through 7.002/7.003.

- 7.002 Fundamentals of Experimental Molecular Biology
- 7.003 Molecular Biology Laboratory
- Undergraduate Research Opportunities Program (UROP)

Students who demonstrate outstanding research effort may participate in the annual Undergraduate Research Symposium.

### MINOR IN BIOLOGY

5.12, 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.

### BIOLOGY UNDERGRADUATE STUDENT ASSOCIATION (BUSA)

The Biology Undergraduate Student Association (BUSA) serves all MIT students with an interest in biology. BUSA helps to broaden the biology undergraduate experience through both social and academic activities. Contact us at bexec@mit.edu