DESCRIPTION
Biologists study organisms and the systems and processes that permit life. A biology major takes an extensive look at the biological world, including ecology, evolutionary systems, genetics, molecular and cellular biology, immunology, developmental biology and neurobiology, and is research-intensive in both coursework and labs. Individuals majoring in biology may work in industries such as health care, drug development, law, science policy, scientific writing, and government. It also provides a strong background for graduate or medical school.

SKILLS
Designing and conducting studies
Strong report-writing skills
Safe handling of chemical materials and equipment
Strong time management and organization

POSSIBLE FUTURE POSITIONS
- **Biological technician**: Prepare samples for analysis by biologists or medical scientists, conduct experiments for scientists, and maintain laboratory equipment.
- **Microbiologist**: Conduct research projects to study how microorganisms affect the environment and other life forms, prepare reports and present research findings.
- **Environmental scientist**: Develop research projects and investigations to fix or prevent environmental concerns such as pollution.

CAREER INDUSTRY EXAMPLES

<table>
<thead>
<tr>
<th>Consulting</th>
<th>Environmental Science</th>
<th>Healthcare</th>
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<tbody>
<tr>
<td>Pharmaceuticals</td>
<td>Food Science</td>
<td>Biotechnology</td>
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<tr>
<td>Medicine</td>
<td>Research</td>
<td>Genetics</td>
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<tr>
<td>Computer software</td>
<td>Counseling</td>
<td>Conservation</td>
</tr>
</tbody>
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SAMPLE EMPLOYERS

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<thead>
<tr>
<th>Amgen</th>
<th>Broad Institute</th>
<th>Massachusetts General Hospital</th>
</tr>
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<tbody>
<tr>
<td>Athenahealth</td>
<td>End to End Analytics</td>
<td>McKinsey &amp; Company</td>
</tr>
<tr>
<td>Boston Children’s Hospital</td>
<td>Harvard Medical School</td>
<td>NYU School of Medicine</td>
</tr>
</tbody>
</table>
INSIDE COURSE 7

7  Biology  Undergraduates: 58
7-A Biology (preparation for careers without laboratory research)  Undergraduates: 8
5-7 Chemistry and Biology  Undergraduates: 18
6-7 Computer Science and Molecular Biology  Undergraduates: 32

DEPARTMENT FAVORITES

7.05 General Biochemistry
Contributions of biochemistry toward an understanding of the structure and functioning of organisms, tissues, and cells. Chemistry and functions of constituents of cells and tissues and the chemical and physical-chemical basis for the structures of nucleic acids, proteins, and carbohydrates. Basic enzymology and biochemical reaction mechanisms involved in macromolecular synthesis and degradation, signaling, transport, and movement. General metabolism of carbohydrates, fats, and nitrogen-containing materials such as amino acids, proteins, and related compounds.

7.20 Human Physiology
Comprehensive exploration of human physiology, emphasizing the molecular basis and applied aspects of organ function and regulation in health and disease. Includes a review of cell structure and function, as well as the mechanisms by which the endocrine and nervous systems integrate cellular metabolism.

7.26 Molecular Basis of Infectious Diseases
Focuses on the principles of host-pathogen interactions with an emphasis on infectious diseases of humans. Presents key concepts of pathogenesis through the study of various human pathogens. Includes critical analysis and discussion of assigned readings.

COURSE 7-FRIENDLY LABS

Broad Institute
McGovern Institute for Brain Research
Whitehead Institute for Biomedical Research

GET INVOLVED WITH COURSE 7

Biology Undergraduate Students Association  The BioMakers group
Biotechnology Group  Undergraduate Biochemistry Association
MIT Microbiome Club

Sources: MIT Global Education & Career Development, Graduating Student Survey 2015 - 2017. Collegeboard.org. University of Minnesota Center for Academic Planning. UPOP is here to help you! Come talk to us in 1-123 or email us at upopstudentprogram@mit.edu