

DEPARTMENT OF BIOLOGY

Undergraduate Study

Bachelor of Science in Biology (Course 7)

The curriculum leading to the Bachelor of Science in Biology (<https://catalog.mit.edu/degree-charts/biology-course-7>) is designed to prepare students for a professional career in the area of the biological sciences. Graduates of this program are well prepared for positions in industrial or research institutes. However, experience has shown that many graduates choose to continue their education at a graduate school in order to obtain a PhD in an area such as biochemistry, microbiology, genetics, biophysics, cell biology, or physiology, followed by research or teaching in one of those areas. The undergraduate curriculum is also excellent preparation for students who wish to continue their education toward an MD, particularly if their career plans include laboratory investigations bearing on human disease. Students are encouraged to use their elective subjects for more advanced subjects in their field and for additional study in basic and advanced subjects offered in various departments.

Bachelor of Science in Chemistry and Biology (Course 5-7)

The Departments of Biology and Chemistry jointly offer a Bachelor of Science in Chemistry and Biology (<https://catalog.mit.edu/degree-charts/chemistry-biology-course-5-7>). A detailed description of the requirements for this degree program (<https://catalog.mit.edu/interdisciplinary/undergraduate-programs/degrees/chemistry-biology>) can be found in the section on Interdisciplinary Programs.

Bachelor of Science in Computer Science and Molecular Biology (Course 6-7)

The Department of Biology jointly offers a Bachelor of Science in Computer Science and Molecular Biology (<https://catalog.mit.edu/degree-charts/computer-science-molecular-biology-course-6-7>) with the Department of Electrical Engineering and Computer Science. Requirements for this degree program (<https://catalog.mit.edu/interdisciplinary/undergraduate-programs/degrees/computer-science-molecular-biology>) can be found in the section on Interdisciplinary Programs.

Minor in Biology

The department offers a Minor in Biology; the requirements are as follows:

5.12	Organic Chemistry I	12
7.03	Genetics	12
7.05	General Biochemistry	12
or 5.07[J]	Introduction to Biological Chemistry	
Select two of the following:		24-30

7.002
& 7.003[J] Fundamentals of Experimental Molecular Biology and Applied Molecular Biology Laboratory

7.06 Cell Biology

7.08[J] Fundamentals of Chemical Biology

7.093
& 7.094 Modern Biostatistics and Modern Computational Biology

7.20[J] Human Physiology

7.21 Microbial Physiology

7.23[J] Immunology

7.24 Advanced Concepts in Immunology

7.26 Molecular Basis of Infectious Disease

7.27 Principles of Human Disease and Aging

7.28 Molecular Biology

7.29[J] Cellular and Molecular Neurobiology

7.30[J] Fundamentals of Ecology

7.32 Systems Biology

7.33[J] Evolutionary Biology: Concepts, Models and Computation

7.35 Human Genetics and Genomics

7.36 The CRISPR Revolution: Engineering the Genome for Basic Science and Clinical Medicine

7.45 The Hallmarks of Cancer

7.371[J] Biological and Engineering Principles Underlying Novel Biotherapeutics

7.38 Design Principles of Biological Systems

7.46 Building with Cells

7.48 Cancer Therapeutics

7.49[J] Developmental Neurobiology

Total Units

60-66

For a general description of the minor program (<https://catalog.mit.edu/mit/undergraduate-education/academic-programs/minors>), see Undergraduate Education.

Inquiries

Additional information regarding undergraduate academic programs and research opportunities may be obtained from the Biology Education Office (undergradbio@mit.edu), Room 68-120, 617-253-4718.