

# BIOLOGY

## Associate in Science Degree

### Program Description

This program is for students who seek a career in biological sciences. Students will attain a solid foundation in science after taking introductory biology, chemistry, and math courses. Students will have the opportunity to hone their writing and critical thinking skills while taking courses from the liberal arts department. In the second year, students will take more advanced program electives to be better prepared to enter a bachelor's program. By the end of their studies, students should be prepared to continue their education in a four-year biology, biotechnology, or medically-related program or to enter the workforce in an entry-level position in biology.

### Program Outcomes

At the completion of this program, the student should be able to:

- Apply knowledge of biological facts and concepts.
- Collect accurate and meaningful data and derive reasonable conclusions from its analysis.
- Apply analytical thinking and scientific method in designing experiments and problem solving.
- Analyze and apply fundamental concepts and techniques to scientific issues as part of team-based tasks.
- Synthesize information and show effective written, verbal, and graphical communication skills.

General Education Requirements – see p. 89	Credits
<b>25 credits total</b>	
BIO 111 General Biology I w/Lab	4 credits
Computer Science	3 credits
ENG 101 English Composition I	3 credits
ENG 102 English Composition II <sup>1</sup>	3 credits
History/Government	3 credits
IDS 167 First Year Seminar	3 credits
MAT 113 Precalculus <sup>1</sup> or higher level math course	3 credits
Social Science/Psychology	3 credits

Program Requirements – 36 credits total	Credits
BIO 112 General Biology II w/Lab <sup>1</sup>	4 credits
BIO 204 Genetics w/Lab <sup>1</sup>	5 credits
BTC 210 Biochemistry w/Lab <sup>1</sup>	4 credits
BTC 240 Seminar in Biotechnology	1 credit
CHE 121 General Chemistry I w/Lab <sup>1</sup>	4 credits
CHE 122 General Chemistry II w/Lab <sup>1</sup>	4 credits
MAT 107 Statistics <sup>1</sup>	3 credits
Open Elective	3 credits
Program Electives (see below)	8 credits

**Total credits required for graduation 61 credits**

Program Electives	Credits
BIO 131 Anatomy & Physiology I w/Lab <sup>1</sup>	4 credits
BIO 132 Anatomy & Physiology II w/Lab <sup>1</sup>	4 credits
BIO 160 Marine Ecology w/Lab (F)	4 credits
BIO 251 Microbiology w/Lab <sup>1</sup>	4 credits
CHE 213 Organic Chemistry I w/Lab <sup>1</sup> (F)	5 credits
CHE 214 Organic Chemistry II w/Lab <sup>1</sup> (S)	5 credits
ENV 101 Intro. Environmental Studies w/Lab (S)	4 credits
PHY 111 General Physics I w/Lab <sup>1</sup>	4 credits
PHY 112 General Physics II w/Lab <sup>1</sup> (S)	4 credits

### Additional Information

1. Indicates course requires the completion of a prerequisite.

NOTE: All classes are offered in the fall and the spring unless otherwise designated:

F=Class is only offered in the Fall  
S=Class is only offered in the Spring

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Semester 1	Credits	Pre-Requisites
BIO 111 General Biology I w/Lab	4 credits	
CHE 121 General Chemistry I w/Lab	4 credits	MAT 103
ENG 101 English Composition I	3 credits	
IDS 167 First Year Seminar	3 credits	
MAT 113 Precalculus or higher level math course	3 credits	MAT 103
<b>Total</b>	<b>17 credits</b>	

Semester 2	Credits	Pre-Requisites
BIO 112 General Biology II w/Lab	4 credits	BIO 111
CHE 122 General Chemistry II w/Lab	4 credits	CHE 121
ENG 102 English Composition II	3 credits	ENG 101
History/Government	3 credits	
Social Science/Psychology	3 credits	
<b>Total</b>	<b>17 credits</b>	

Semester 3	Credits	Pre-Requisites
BIO 204 Genetics w/Lab	5 credits	BIO 111
Computer Science	3 credits	
MAT 107 Statistics	3 credits	MAT 097
Program Elective	4 credits	
<b>Total</b>	<b>15 credits</b>	

Semester 4	Credits	Pre-Requisites
BTC 210 Biochemistry w/Lab	3 credits	CHE 121 and MAT 103
BTC 240 Seminar in Biotechnology	1 credit	BTC 220
Open Elective	3 credits	
Program Elective	4 credits	
<b>Total</b>	<b>12 credits</b>	

### Semester Path:

Recommended course of study for a full-time student. It is recommended that students speak to an Academic Advisor before registering for courses each semester.

### Student Resources:

**Academic Advising**  
617-984-1720

**Dean's Office of Liberal Arts**  
617-405-5920

**Dean's Office of Natural and Health Science**  
617-405-5960

**Dean's Office of Nursing**  
617-405-5990

**Dean's Office of Professional Programs**  
617-405-5920

**Financial Aid Office**  
617-984-1620

**Registrar's Office**  
617-984-1650

**Student Accessibility and Academic Support Services**  
617-405-5915