

# Biology

## Major

The introductory Biology program for majors (BI 110) serves as a solid preparation for more advanced study and is a prerequisite for any advanced courses. The second tier of the Biology program includes required courses of Molecular Genetics (BI 207) and Ecology and Evolution (BI 238).

## Required Courses

Item #	Title	Credits
BI 110	Biological Investigation	4.0
BI 207	Molecular Genetics	4.0
BI 238	Ecology and Evolution	4.0

## Other Requirements

Students must also complete a minimum of four Biology courses number 200 or higher, including at least one from each of the following categories:

Item #	Title	Credits
	<b>Cellular and Molecular Biology</b>	<b>4.0</b>
BI 306	Developmental Biology	4.0
BI 307	Cell and Molecular Biology	4.0
BI 310	Immunology	4.0
BI 311	Virology	4.0
BI 345	Principles of Microbiology	4.0
	<b>Organismal Biology</b>	<b>4.0</b>
BI 201	Botany	4.0
BI 206	Vertebrate Zoology	4.0
BI 318	Algae and Fungi	4.0
BI 342	Parasitology	4.0
BI 350	Entomology	4.0
	<b>Systems Biology</b>	<b>4.0</b>
BI 315	Anatomy and Physiology I	4.0
BI 316	Anatomy and Physiology II	4.0
BI 325	Tropical Ecology	4.0
BI 326	Marine Biology	4.0
BI 332	Aquatic Biology	4.0

## Capstone

In the senior year, all majors complete the program by enrolling in one of the capstone options offered in Biology:

- The two-semester sequence of Research and Analysis I (BI 401) and II (BI 402),
- HS 402 for students interested in the Health Sciences or who need a one semester capstone experience, or
- BI 404 for students who have conducted research with faculty in Biology

Item #	Title	Credits
BI 401	Research and Analysis I	2.0
BI 402	Research and Analysis II	2.0
HS 402	Senior Seminar	4.0
BI 404	Research Experience Capstone	3.0-4.0

## Tool Courses

Students should complete as many of the following tool courses as possible before enrolling in 200- 300 level courses. Math: MA 133 is required for CH 110; A course in statistics (e.g. MA 123 or PS 243) is highly recommended.

Three chemistry courses from the following list are required for the major:

Item #	Title	Credits
CH 110	General Chemistry	4.0
CH 203	Organic Chemistry I	4.0
CH 211	Quantitative Analysis	4.0
CH 231	Inorganic Chemistry	4.0
CH 304	Organic Chemistry II	4.0
CH 309	Biochemistry I	4.0

Additionally, students must take two quantitative electives from the following list:

Item #	Title	Credits
CS 160	Introduction to Computer Science	4.0
CS 170	Introduction to Data Structures	4.0
MA 201	Discrete Mathematics	4.0
MA 213	Calculus I	4.0
MA 223	Calculus II	4.0
<b>PY 181 or PY 201</b>		<b>4.0</b>

## General Physics I or College Physics I

PY 181	General Physics I	4.0
PY 201	College Physics I	4.0
<b>PY 182 or PY 202</b>		<b>4.0</b>

## General Physics II or College Physics II

PY 182	General Physics II	4.0
PY 202	College Physics II	4.0
<b>Total Credits</b>		<b>52</b>