

Biology

Degree Type

Bachelor of Science - Major

Major Requirements

Consists of a minimum of 43 credits of courses in biology, chemistry and mathematics. Students choose one of two tracks: General Biology, or Secondary Education.

Core Courses

The following core courses are required for each track, consisting of 26 credits:

Course Code	Title	Credits
BIOL-110	Principles of Biology I	4
BIOL-111	Principles of Biology II	4
BIOL-309	Genetics	4
BIOL-430	Evolution	3
CHEM-161	General Chemistry I	4
CHEM-162	General Chemistry II	4

Choose One Course From the Following

Course Code	Title	Credits
MATH-130	Survey of Calculus	3
MATH-133	Calculus I	4

The remaining credits come from the tracks as follows (students choose one track):

Track 1-General Biology

Consists of 17 to 20 credits chosen from the following areas plus 2 elective BIOL courses numbered 300 or higher.

Cell Biology/Physiology (1 course)

Course Code	Title	Credits
BIOL-311 / ENVR-311	Animal Physiology	4
BIOL-314	Human Physiology	4
BIOL-325	Molecular Biology of the Cell	4
BIOL-360	Environmental Physiology	4

Ecology (1 course)

Course Code	Title	Credits
BIOL-350	Ecology	4
BIOL-401 / ENVR-401	Environmental Microbiology	4
BIOL-435 / ENVR-435	Freshwater Ecology	4

Organismal Biology (1 course)

Course Code	Title	Credits
BIOL-316	Ornithology: the Biology of Birds	4
BIOL-320	Developmental Biology	3
BIOL-321	Herpetology	4
BIOL-322	Mammalogy	4
BIOL-335	Field Botany	3
BIOL-340	Botany	4
BIOL-400	Microbiology	4
BIOL-403	Pathogenic Microbiology	4
BIOL-420	Plant Taxonomy	4
BIOL-433 / ENVR-433	Biology & Management of Fishes	4
BIOL-440	Animal Behavior	4

Electives

Two elective BIOL courses numbered 300 or higher.

Track 2-Biology Secondary Education

This track is for students interested in pursuing licensure in biology education. Interested students should also see the Teacher Education Program section of the catalog for education curriculum requirements.

Consists of 20 credits chosen from the following areas:

Cell Biology/Physiology (1 course)

Course Code	Title	Credits
BIOL-311 / ENVR-311	Animal Physiology	4
BIOL-314	Human Physiology	4
BIOL-325	Molecular Biology of the Cell	4

Ecology (1 course)

Course Code	Title	Credits
BIOL-350	Ecology	4

Organic Chemistry (1 course)

Course Code	Title	Credits
CHEM-250	Fundamental Organic Chemistry	4
CHEM-305	Organic Chemistry I	4

Earth Science (1 course)

Course Code	Title	Credits
CHEM-102 / GEOL-102	Earth Science	4
GEOL-130	Physical Geology	4

Physics (1 course)

Course Code	Title	Credits
PHYS-125	Concepts of Physics	4
PHYS-218	College Physics I	4
PHYS-221	General Physics I	4
Total Credits		44

For the elective BIOL courses in the tracks, only 3 credits may be chosen from [BIOL-460](#), [BIOL-461](#), [BIOL-462](#), [BIOL-490](#), [BIOL-491](#) or [BIOL-499](#), while Internship ([BIOL-480X](#)) cannot be used to meet this requirement. Students wishing to double major in biology and environmental science or in chemistry and environmental science may not overlap or double count the electives selected on the environmental science plan of major to the other major.