

Biological Sciences

Department Information

- **Department Location:**
Stevens Hall
- **Department Phone:**
701-231-7087
- **Department Web Site:**
www.ndsu.edu/biology/
- **Degrees Offered:**
B.S.; B.A.
- **Official Program Curriculum:**
bulletin.ndsu.edu/undergraduate/program-curriculum/biological-sciences/

A Biological Sciences degree is available in a traditional broad-based sequence or in an Environmental Science option.

Biological Sciences Standard Option

Biological Sciences is a comprehensive field of biology that prepares students for a variety of careers in human health, environmental science, conservation, and plant and animal biology. With its many areas of emphasis, the program integrates studies in zoology, botany, and biological sciences and offers students the flexibility to customize their field of study to align course selection with educational and professional goals. The program integrates broad-based biology foundation classes with specializations such as biomedical science or conservation biology, in later years. With appropriate course selection, the Biological Sciences degree also can provide a broad understanding of the complex relationship between the living and nonliving world. Students will be able to choose a research based course that focuses on plants, wildlife, antibiotics, or learning.

Environmental Science Option

Environmental Science is characterized by an integrative, multidisciplinary approach to environmental issues of concern to humans. This represents an exciting, rewarding area of science, which requires an especially strong academic background and an ability to think both analytically and comprehensively.

For students interested in careers that address solving environmental problems, there is the Biological Sciences major with an Environmental option. This rigorous option incorporates balanced studies in the natural sciences (biology, chemistry, physics, and earth sciences) with social sciences (economics, political science, and sociology). It also involves technology, business, law, ethics, and human relations and behavior. Students interested in this option should visit with an adviser to obtain the specific requirements. Environmental Science students may not pursue a minor in Biology.

Biological Sciences Education and Comprehensive Science Education Majors

Students interested in Biological Sciences Education (<http://bulletin.ndsu.edu/past-bulletin-archive/2018-19/programs-study/undergraduate/biological-sciences-education>) or Comprehensive Science Education (<http://bulletin.ndsu.edu/past-bulletin-archive/2018-19/programs-study/undergraduate/comprehensive-science-education>) are encouraged to declare a double major in the discipline and in education (i.e., Biological Sciences Education and Biological Sciences). Such double majors may be earned by successful completion of a few additional credits. Students should contact advisers in Biological Sciences for details.

Students who intend to teach life sciences in the secondary schools should make their intentions known to the School of Education and consult with a biology education adviser in the Department of Biological Sciences (<https://www.ndsu.edu/biology>) early in their programs to make certain that they have a well-designed program and take the professional education courses required for state teacher certification.

The Comprehensive Science Education major is designed to prepare the secondary general science teacher. This major is an especially good preparation for students who may find themselves teaching several different science courses. Information about curriculum and other requirements is available from the School of Education (<https://www.ndsu.edu/education>) and the education adviser in the Department of Biological Sciences. Biological Sciences Education and Comprehensive Science Education majors cannot pursue a minor in Biology.

Please note this is a sample plan of study and not an official curriculum. Actual student schedules for each semester will vary depending on start year, education goals, applicable transfer credit, and course availability. Students are encouraged to work with their academic advisor on a regular basis to review degree progress and customize an individual plan of study.

First Year			
Fall	Credits	Spring	Credits
BIOL 189		BIOL 151 & 151L	4

BIOL 150 & 150L	4 CHEM 122 & 122L	4
CHEM 121 & 121L	4 ENGL 120	3
ENGL 110	4 MATH 146 or 165	4
MATH 103	3	
	15	15
Second Year		
Fall	Credits	Spring Credits
BIOL 252	3	BIOL 270, 271, or 272 3
BIOL 315 & 315L	4	PHYS 120 or 211 <i>and</i> 211L <i>and</i> 212 <i>and</i> 212L 3
CHEM 240, 341 <i>and</i> 341L, or 342 <i>and</i> 342L	3-4	BIOL 364 or 370 3
COMM 110	3	Social & Behavioral Sciences Gen Ed 3
Humanities & Fine Arts Gen Ed	3	Wellness Gen Ed 2
	16-17	14
Third Year		
Fall	Credits	Spring Credits
BIOL 300-400 Elective	3	BIOL 300-400 Elective 3
BIOL 359	3	Free Elective 9
ENGL 324	3	Social & Behavioral Science/Global Diversity Gen Ed 3
Free Elective	3	
Humanities & Fine Arts/Cultural Diversity Gen Ed	3	
	15	15
Fourth Year		
Fall	Credits	Spring Credits
BIOL 300-400 Elective	6	BIOL 491 2-5
Free Elective	9	BIOL 300-400 Elective 3
		Free Elective 9
	15	14-17

Total Credits: 119-123

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Pre-Professional School

First Year		
Fall	Credits	Spring Credits
BIOL 189	1	BIOL 151 3
BIOL 150	3	BIOL 151L 1
BIOL 150L	1	CHEM 122 3
CHEM 121	3	CHEM 122L 1
CHEM 121L	1	MATH 146 4
MATH 103	3	ENGL 120 3

ENGL 110	4		
	16		15
Second Year			
Fall	Credits	Spring	Credits
BIOL 252	3	BIOL 270	3
BIOL 315	3	BIOL 370	3
BIOL 315L	1	CHEM 342	3
CHEM 341	3	CHEM 342L	1
CHEM 341L	1	PSYC 111	3
COMM 110	3	SOC 110	3
	14		16
Third Year			
Fall	Credits	Spring	Credits
PHYS 211	3	PHYS 212	3
PHYS 211L	1	PHYS 212L	1
BIOL 359	3	BIOL 460	3
BIOC 460	3	Recommended Pre-Requisite	3
ENGL 324	3	Humanities and Fine Arts/Cultural Diversity Gen Ed	3
Wellness Gen Ed	2	College Requirement	3
	15		16
Fourth Year			
Fall	Credits	Spring	Credits
BIOL 300-400 Elective	6	BIOL 491	1-5
Recommended Pre-Requisite	3	BIOL 300-400 Elective	6
Humanities and Fine Arts/Global Perspective Gen Ed	3	Recommended Pre-Requisite	6
College Requirement	3		
	15		13-17
Total Credits: 120-124			