The Department of Biological Sciences offers a major leading to the Bachelor of Science Degree. The program prepares students for employment in a variety of biological areas in government, education, and industry, for entrance into graduate study in a biological discipline, and for professional schools such as medical, dental, podiatric medicine, optometry, veterinary medicine and pharmacy. With some additional course work and student teaching, students may also be certified to teach at the middle school and high school levels (Biology and General Science).

<table>
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<tr>
<th>Clubs and Groups</th>
<th>Research Facilities</th>
<th>Engaged Learning</th>
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<tbody>
<tr>
<td>• Anatomy Club</td>
<td>Our teaching laboratories will provide you with extensive experience with living organisms and experimental equipment and technology, including live animal quarters, greenhouses, anatomy lab, confocal and electron microscopy, flow cytometer, molecular core services, X-ray and radioisotope laboratories.</td>
<td>Research in a Biology Professor's Lab: Being involved in actual research is the best way to learn the process of science. Here at NIU, students can work closely with a professor in a lab setting and gain valuable experience in the general principles of experimental design, analyses, interpretation, literature search and scientific writing.</td>
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<tr>
<td>• Phi Sigma Science Biological Sciences Honors Society</td>
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<td>• Committee for the Preservation of Wildlife</td>
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<td>• Pre-Professional Association</td>
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<td>• Pre-Veterinary Medicine Association</td>
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“Through their substantial research and teaching experience, the faculty and staff of NIU’s Biology program provide a fertile environment in which a student may develop and nurture intellectual curiosity for processes of the natural world.”

Evan Wittke, BIOS, 2014
BIOLOGICAL SCIENCES AT NORTHERN ILLINOIS UNIVERSITY

Degree Requirements

Biology is a diverse and rapidly expanding field of study that addresses issues relevant to health, agriculture, industry and the environment. Biologists are responsible for new discoveries in medicine and molecular biology, increasing crop yields and pest resistance, defining the ecological relationships that maintain our planet and examining the origins and evolution of species, to name just a few. As the scope and pace of biological discoveries increase, so do the career opportunities for students in this exciting and rapidly expanding field of study.

Major Requirements (46 hrs.)

Requirements in Department

Note: There is a 50-semester-hour limit of biology courses whether or not they apply to the major.

- BIOS 208 Fund. of Cellular Biology
- BIOS 210 Fund. of Cellular Biology Lab
- BIOS 209 Fund. of Organismal Biology
- BIOS 211 Fund. of Organismal Biology Lab
- BIOS 308 Genetics
- BIOS 494 Biology Senior Assessment

Electives from biological sciences courses at the 300 or 400 level (34)

- Biology electives are offered in six primary areas of departmental specialization and include:
  1) Biomedical Pre-Professional
  2) Molecular Bioinformatics
  3) Microbiology
  4) Ecology, Evolution, Behavior and Conservation
  5) Plant Science
  6) Biology Teaching

Students should consult with the departmental advisor for assistance in selecting the appropriate sequence of courses within one of these fields of study. Lists of biology upper level elective courses that are particularly relevant for each of the tracks are available in the Department of Biological Sciences office and website.

Requirements outside Department (31-33) Chemistry

- CHEM 210 General Chemistry I*
  and
- CHEM 212 General Chemistry Lab I*

- CHEM 211 General Chemistry II*
  and
- CHEM 213 General Chemistry Lab II *
  or
- CHEM 330 General Organic Chemistry I
  or
- CHEM 336 Organic Chemistry I
- CHEM 331 General Organic Chemistry II
  or
- CHEM 337 Organic Chemistry II

Math

- MATH 155 Trig. and Elem. Functions*
  or satisfactory performance on the Math Placement Exam
  and
- MATH 229 Calculus I*
  or
- MATH 230 Calculus II
  or
- MATH 211 Calculus for Business and Social Science*
  and
- STAT 200 Elementary Statistics

Physics

- PHYS 210 General Physics I*
- PHYS 211 General Physics II*
  or
- PHYS 253 Fund. of Physics I: Mechanics*
  and
- PHYS 273 Fund. of Physics II: Electromagnetism*

*Available for general education credit.
Total Hours in Biological Sciences: 78-80

Contact Information

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Northern Illinois University
DeKalb, IL 60115
(815) 753-1753
e-mail us: eburgess2@niu.edu

niu.edu/biology

Careers in the Biological Sciences

This program prepares students for employment in a variety of biological areas in government, education, and industry, for entrance into graduate study in a biological discipline, and for professional schools such as medical, dental, podiatric medicine, optometry, veterinary medicine and pharmacy.

- Physician
- Teacher, Professor
- Dentist
- Zoo Keeper
- Pharmacist
- Park Naturalist
- Physician Assistant
- Museum Curator
- Veterinarian
- Horticulturist
- Plant Genetic Engineer
- Political Consultant
- Industrial Molecular Biologist
- Forensic Biologist
- Research Technician
- Bioinformatics
- Microbiologist
- Environmental Consultant
- Biomedical Scientist
- Food/Water Quality Control
- Biological Patent Attorney
- Nuclear Medicine Technicians
- Pharmaceutical Sales
- Biotechnology Technician
- Genetic Counselor
- Conservation Biologist