



BIOLOGICAL SCIENCES

Academics

When you major in biological sciences you can explore the living world—from molecules to ecosystems! You will have the opportunity to take an anatomy course that utilizes cadavers or study at the Cedar Point Biological Station that offers hands-on lab and field courses during the summer. You will put concepts of biology into real-world practice in a unique setting.

Requirements for the major include coursework in cellular and molecular biology, biodiversity, genetics, ecology and evolution. Beyond that, dive deep and explore your particular interests—microbiology, ecology, genetics or physiology—through research, coursework, and independent study directed by a faculty member.

OPTIONS

- **Standard** — allows students to choose their own combination of advanced courses from subareas of cellular biology, organismal biology, genetics, ecology, and evolution
- **Human Health and Disease** — provides students the opportunity to combine a strong biological sciences education with a focus on the health and disease of humans

Opportunities

Biology is a broad field providing numerous, diverse career options. You may choose to continue on to professional school for a career in clinical healthcare or work in public health, health policy or health care administration. You might choose to work as a food industry researcher, conservationist or zookeeper. You can also explore the pharmaceutical realm in sales or production. Biomedical research, genetic counseling and bioinformatics are additional career options. Here are examples of recent graduates' employment:

- Clinical Data Quality Specialist / *CELERION, INC.*
- DNA Lab Tech / *GENESEEK*
- Epidemiology Preparedness Coordinator / *NEBRASKA DEPARTMENT OF HEALTH AND HUMAN SERVICES*
- Forestry Aid / *UNITED STATES FOREST SERVICE*
- Hospital Generalist / *PATHOLOGY MEDICAL SERVICES*
- Mental Health Tech / *TOUCHSTONE*
- Produce Safety Coordinator / *MONTANA DEPARTMENT OF AGRICULTURE*
- Scientist / *SAN DIEGO ZOO INSTITUTE FOR CONSERVATION RESEARCH*
- Veterinary Assistant / *ANIMAL CARE CLINIC*
- Zookeeper / *OMAHA HENRY DOORLY ZOO*

Experience

In the College of Arts and Sciences, we know experience is valuable and goes beyond the classroom. We strive to help you connect your academics with research, internships, education abroad, service learning and leadership experiences. Take advantage of opportunities in biological sciences such as:

- Studying abroad in Costa Rica with the Organization for Tropical Studies
- Serving as the Biology Club president
- Working as the Human Anatomy Lab Teaching Assistant
- Volunteering for the Alzheimer's Association of Nebraska
- Researching in the Nebraska Center for Virology or the Center for Biotechnology



BIOS – SAMPLE 4-YEAR PLAN (STANDARD OPTION)*

ACE = Achievement-Centered Education CDR = College Distribution Requirements

FIRST SEMESTER

| | |
|---|-----------|
| BIOS 100: Biological Sciences Pathway | 1 |
| CHEM 109A, 109L: General Chemistry I with Lab (ACE 4) | 4 |
| MATH 106: Calculus I (ACE 3) | 5 |
| Written Texts / Research & Knowledge Skills (ACE 1) | 3 |
| CDR: Language | 3 |
| Total Hours | 16 |

SECOND SEMESTER

| | |
|--|-----------|
| CHEM 110A, 110L: General Chemistry II with Lab | 4 |
| LIFE 120, 120L: Fundamentals of Biology I with Lab | 4 |
| CDR: Written Communication | 3 |
| CDR: Language | 3 |
| Total Hours | 14 |

THIRD SEMESTER

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|---|-----------|
| LIFE 121, 121L: Fundamentals of Biology II with Lab | 4 |
| CHEM 251, 253: Organic Chemistry I with Lab | 5 |
| Communication Skills (ACE 2) | 3 |
| Humanities (ACE 5) | 3 |
| Elective / Minor / Secondary Major / Science / Pre-Professional | 1 |
| Total Hours | 16 |

FOURTH SEMESTER

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|---|-----------|
| BIOS 205: Genetics, Molecular and Cellular Biology Laboratory | 2 |
| BIOS 206: General Genetics | 4 |
| Math / Statistics Course | 3 |
| CDR: Human Diversity in U.S. Communities | 3 |
| Social Sciences (ACE 6) | 3 |
| Total Hours | 15 |

FIFTH SEMESTER

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|--|-----------|
| Biological Science Course | 4 |
| BIOC 401 or 431 | 3 |
| PHYS 141: Elementary General Physics I | 5 |
| Ethics / Civics / Stewardship (ACE 8) | 3 |
| Total Hours | 15 |

SIXTH SEMESTER

| | |
|---|-----------|
| BIOS 207: Ecology and Evolution | 4 |
| PHYS 142: Elementary General Physics II | 5 |
| CDR: Social Science | 3 |
| Elective / Minor / Secondary Major / Science / Pre-Professional | 3 |
| Total Hours | 15 |

SEVENTH SEMESTER

| | |
|---|-----------|
| Biological Science 300- or 400-Level Course | 4 |
| Biological Science 400-Level Course | 3 |
| CDR: Humanities | 3 |
| Elective / Minor / Secondary Major / Science / Pre-Professional | 3 |
| Elective / Minor / Secondary Major / Science / Pre-Professional | 3 |
| Total Hours | 16 |

EIGHTH SEMESTER

| | |
|--|-----------|
| Biological Science 400-Level Course (ACE 10) | 3 |
| Biological Science Course | 4 |
| BIOS 99: Assessment of the Major | 0 |
| Fine Arts (ACE 7) | 3 |
| Global Awareness & Human Diversity (ACE 9) | 3 |
| Total Hours | 13 |

*DISCLAIMER: This document represents a sample 4-year plan for degree completion with a major of interest in the College of Arts and Sciences. Actual course selection and sequence may vary and should be discussed individually with an academic advisor at the college and department level.