

How will climate change impact life on Earth? What makes cancer difficult to cure? Which plants are compatible with sustainable water use? Can we create a vaccine for HIV? Can prairies be restored?

How would you like to study all of these questions? With a major in Biology through UNO's Biology Department you can! Faculty and students in Biology address these and many other major questions in their research programs, and translate findings into real solutions.

Notice that most questions in Biology involve more than one area of expertise. Biology and Bioinformatics, Biology and Sustainability, Biology and Biomedicine, Biology and Environmental Science, Biology and Neuroscience. Today's questions require multi-disciplinary teams, and UNO's Biology programs provide opportunities to join multi-disciplinary teams in research and in the classroom. This is how our students access careers in medicine, sustainability, environmental assessment, biomedical research, and over 100 other exciting areas.

So if you're interested in solving real-world problems, doing cutting edge research and preparing yourself for a promising career, join us in Biology!

## Course Highlights:

BIOL 3240	INTRODUCTION TO IMMUNOLOGY
BIOL 3530	FLORA OF THE GREAT PLAINS
BIOL 4130	MOLECULAR GENETICS
BIOL 4180	FRESHWATER ECOLOGY
BIOL 4210	FIRE ECOLOGY
BIOL 4850	DEVELOPMENTAL BIOLOGY
BIOL 4860	COMPARATIVE GENOMICS
BIOL 4970	ADVANCED BOTANY
BIOL 4980	ORNITHOLOGY

## Knowledge & skills gained as a Biology major:

### Knowledge

- Appreciation for the diversity of life on earth
- Understanding the flow of energy and matter in biological systems
- Understanding the process and outcomes of evolution
- Observing of the interdependence of living things
- Evaluating strategies for sustainable living
- Understanding the role of biology in addressing societal issues
- Understanding the mechanisms of genetic inheritance and information flow
- Observing emergent properties of complex biological networks
- Understanding structure-function relationships from molecules to ecosystems

### Skills

- Design, conduct and interpret scientific research
- Isolate and analyze DNA, RNA and protein
- Sequence genomes
- Conduct statistical analysis
- Apply a scientific approach to problems
- Communicate findings using models, charts and graphs
- Communicate new research findings to lay audiences
- Communicate biological research findings using scientific writing

## Biology major at a glance:

**Number of majors:** 750 **Credit hours needed:** minimum 64

**Degrees offered:** B.A., B.S. **Minors offered:** Yes (21 credits)

**Concentrations:** No

## Career Opportunities:

By nature, Liberal Arts majors make great employees in any field because of their ability to communicate effectively, think critically and solve complex problems. These timeless skills make them attractive to employers across a range of professions. Biology majors often pursue careers as:

- Forest Service Biologist
- Environmental Consultant
- Laboratory Research Technician
- Scientific Sales
- Park Service Biologist
- Technical Service Representative
- Technical Writer
- Over 100 different health careers \*
- High School Teacher or College Professor \*

\* May require graduate study

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When the Biology major is matched with complementary minors and thoughtful internships, new possibilities arise. A few examples are:

- Biology + Computer Science = High-tech Biological research
- Biology + Gerontology = Nursing Home Coordinator
- Biology + Business = Industry jobs of all types
- Biology + English = Technical Writer

## Student Opportunities:

- Environmental Studies Club
- NE STEM 4U
- Anatomy Academic Assistants
- Pre-Health Professionals Club
- Women in Science Technology Engineering & Mathematics
- Several student scholarships available

## Did you know?

- The Biology Department manages over 340 acres of preserve land available for classes and research.
- Your body has around 37 trillion cells and about 10 times that number of bacterial cells.

## For more information:

For program information, contacts and course requirements:

[www.unomaha.edu/biology/](http://www.unomaha.edu/biology/)

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