



EST. 1883

BIOLOGY

BACHELOR OF SCIENCE (B.S.)
BACHELOR OF SCIENCE IN EDUCATION (B.S.ED.)



FIND YOUR CAREER

Employment opportunities exist in a variety of sectors:

- » Medical Professional (MD, MD/PhD, DO, PA, PT, OD, DDS, and others)
- » Medical Technician
- » Pharmacy/Pharmacology
- » Veterinary Medicine
- » Forensics
- » Cytogenetics
- » Genetics
- » Physiology
- » ... and many other biological fields.

EXPLORE THE LIVING WORLD

A Bachelor of Science degree in Biology from BHSU provides students the opportunity to explore the diverse sub-disciplines of biology. Students may choose an emphasis in Environmental Biology with laboratory and field courses that focus on ecological principles, plant and animal biology, and conservation; or an emphasis in Cellular Biology and Physiology with lecture and laboratory courses ranging from Cell & Molecular biology, to Neurobiology, and Genomics. Through the rigorous curricula provided in both emphases, students will learn to design experiments, interpret biological data and communicate biological concepts and research findings effectively. Students completing a Bachelor of Science degree in Biology from BHSU will find themselves:

- **WELL PREPARED FOR GRADUATE PROGRAMS** in a wide variety of biological disciplines.
- **WELL PREPARED FOR ADMISSION TO MEDICAL SCHOOL** or other professional programs in the biomedical sciences.
- **ABLE TO COMPETE WELL FOR JOBS**, whether in the biotech industry or in positions in state or federal agencies.



CONDUCTING RESEARCH AT THE SANFORD UNDERGROUND LAB

Utilizing the Sanford Underground Research Facility as an impetus to teach others about science is a natural connection for Black Hills State University.

BHSU is taking the lead in development of the Sanford Center for Science Education, which will include hands-on science activities for visitors and tourists, classrooms for visiting high school and university groups, and ways to view underground science in action.



BHSU.Natural.
Sciences



BlackHillsState



BlackHillsState

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HANDS-ON EXPERIENCE

BHSU provides Biology majors with opportunities to conduct authentic research in labs outfitted with state-of-the-art equipment. BHSU's Western South Dakota DNA Sequencing and Genotyping Core Facility (WestCore) and the Center for the Conservation of Biological Resources (CCBR) support biology faculty and students conducting genetics and genomics research on a variety of biological systems by providing both NextGen and Sanger nucleic acid sequencing, genotyping, and other services. WestCore and CCBR provide hands on training to undergraduate students in genetics and genomic research techniques using state-of-the-art equipment to prepare students for graduate school or for jobs in the biotechnology workforce.

As a Biology major at BHSU, students will have the opportunity to:

- **BE TAUGHT BY AND INTERACT WITH HIGHLY QUALIFIED FACULTY** who are committed to the highest quality student instruction and advising to ensure students are fully prepared for their desired career path.
- **PARTICIPATE IN AUTHENTIC FACULTY-MENTORED RESEARCH** either through paid undergraduate research fellowships or through independent study.
- **PRESENT RESEARCH FINDINGS** at regional and national scientific conferences. Past students have even published with their mentor in scientific journals!

UNIQUE CLASS EXPERIENCES

Through courses designed to train the future of biologists in cutting edge research techniques and recent advances in the various fields of biology, students are able to earn upper division credit towards their degree while contributing new knowledge to the scientific community. Such courses include:

- **RESR 498 UNDERGRADUATE RESEARCH/SCHOLARSHIP:** Participate in a mentored research experience.
- **BIOL 494 INTERNSHIP:** Participate in an internship with a biotechnology company, campus core facility, or public agency while receiving college credit.
- **BIOL 492 TOPICS BIOLOGY:** Explore recent advances in biology through focused topic courses.
- **BIOL 491 INDEPENDENT STUDY:** Expand knowledge in a particular topic of choice under the guidance of a faculty member.

FACULTY RESEARCH

DR. HOLLY DOWNING
ASSISTANT PROFESSOR

» Research includes: Various aspects of social insect biology, including social dominance and glandular secretions, nest construction behavior, invasive species behavior, and ant diversity in the northern Black Hills.



STUDENT ORGANIZATIONS

HEALTH SCIENCE STUDENT ORG. (HSSO)

Dedicated to students interested in pursuing careers in medicine and healthcare, HSSO provides educational information, internship opportunities, social programs, community service projects, and guest speakers.

ENVIRONMENTAL SUSTAINABILITY STUDENT ORG. (ESSO.)

The purpose of the ESSO is to protect and conserve while generating involvement surrounding environmental issues. Our members will gain experience in leadership and volunteering through community engagement, education, and expansion of our social networks.

PHYSICAL SCIENCE CLUB

Develop professional and leadership skills, network in your field, and have some fun through community and campus outreach, educational programs, social events, and outdoor adventures throughout the Black Hills.

WOMEN IN STEM

Women in Science, Technology, Engineering and Mathematics empowers women at BHSU to pursue and succeed in STEM careers by providing a support system, community, and mentorship for future leaders. Become involved in local and national outreach activities and work with area youth to help develop the next generation of successful women in STEM fields.

Where
Anything
is Possible