Environmental Physical Science

Bachelor of Science (B.S.)



Understanding The Natural World

Enjoy science? Love the outdoors? Want to make a positive difference in the world? Then a degree in Environmental Physical Science at Black Hills State University is for you. What better place to study than in the unique natural laboratory of the Black Hills!

Prepare For Your Future

BHSU and the Black Hills provide an outstanding environment to study the natural world while obtaining your degree. Environmental Physical Science is a broad science degree, unique to BHSU, with an emphasis in geology and the environment. During your studies you will address issues such as: ground and surface water quality and management; soil testing; land-use planning; and natural hazard mitigation.

Your Future Is Bright

Both the geosciences and the environmental sciences are growing careers with excellent and energizing job opportunities. This broad and rigorous science degree will position you perfectly for these careers as well as for graduate school positions. The Bureau of Labor Statistics Outlook Handbook predicts job growth of 21 percent for Geoscientists and 19 percent for Environmental Scientists for the next decade.

Learn From The Best

The science faculty at BHSU will become your mentors in the exploration of the environment. Faculty members have been involved in exciting research projects in the Black Hills as well as in Yellowstone and on volcanoes in the Canary Islands.

Enjoy The Experience

Your classes will make use of our unique and beautiful location to study geology and the environment, with many field trips and local study. You will be encouraged to participate in internships and exciting undergraduate research, such as the Sanford Underground Research Facility (SURF) in Lead, SD.

find your career:

You'll be prepared for a geoscience or environmental science graduate program or an exciting career in the chemical, petroleum, mineral and manufacturing fields. State and federal agencies also offer unique employment opportunities. You could choose to share your knowledge as a secondary science teacher.

You can expect career choices in the fields of:

- Environmental quality analysis
- Hydrology
- Soil conservation
- Natural resource management
- Waste management
- Environmental consultation
- Geosciences

A graduate degree can help increase these options even further!





Composite Major in Environmental Physical Science Required Core

- 4 CHEM 112 General Chemistry I AND 112L Lab **
- 4 CHEM 114 General Chemistry II AND 114L Lab **
- 4 GEOL 201 Physical Geology AND 201L Lab
- 4 GEOL 203 Historical Geology AND 203L Lab
- 3 GEOL 490 Seminar Environmental Geology
- 4 MATH 123 Calculus I**
- 4 MATH 125 Calculus II
- 5 PHYS 211 University Physics I AND 211L Lab
- 5 PHYS 213 University Physics II AND 213L Lab

9 - Choose 3 courses from the following:

- **GEOL 310 Volcanology**
- GEOL 340 Mineralogy/Petrology
- GEOL 350 Environmental Geology
- GEOL 360 Environmental Geochemistry
- GEOL 370 Hydrogeology
- GEOE 322 Structural Geology (at SDSM&T)
- **GEOL 392 Topics**
- GEOL 491 Independent Study

6 - Choose 2 courses from the following:

- MATH 225 Calculus III (4)
- MATH 281 Introduction to Statistics
- MATH 316 Discrete Mathematics
- MATH 321 Differential Equations
- MATH 373 Introduction to Numerical Analysis

Choose 1 course from the following (may not duplicate):

BIOL 317 Electron Microscopy AND 317L Lab

CHEM 342 Physical Chemistry I (4)

CHEM 434 Instrumental Analysis AND 434L Lab (4)

PHYS 331 Introduction to Modern Physics

PHYS 471 Quantum Mechanics

SCI 388 Global Positioning & Geographical Information Systems

General Education Requirements.....

Gen Ed - Social Science 9 semester hours

Gen Ed - Arts & Humanities 12 semester hours

ENGL 101 - Composition I

ENGL 201 - Composition II

SPCM 101, OR SPCM 215, OR SPCM 222 Speech

WEL 100 - Wellness for Life & WEL 100L

A *minor* is NOT required with this major but electives are required to total 120 hours, of which 36 hours must be 300/400 level courses.

**Completes one general education requirement.