

Contact

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Entrance Requirements

Official High School Transcripts, including a 12th Grade class schedule if applicable
SAT or ACT Scores
\$25.00 application fee

Major Requirements

BS Environmental Geosciences-Geology

- 30 credits Geology Core
- 9 credits Geology Electives
- 22 credits Related Science and Math
- 3 credits Geography
- 4 credits Field Camp

- 52 credits Liberal Studies and Electives

BS Environmental Geosciences-Environmental Science

- 47 credits Science (especially Geology, Chemistry, Biology)
- 10 credits Science Electives
- 3 credits Internship or Research Project

- 60 credits Liberal Studies and Electives

120 Minimum total credit hours required for graduation

**Environmental Geoscience:
Environmental Science
Environmental Geoscience:
Geology
BS degrees**

COLLEGE OF HEALTH, ENVIRONMENT, AND SCIENCE

Programs

The eology and environmental science programs provide students with a scientific understanding of the earth system and surrounding environment. Students wishing to study geology may choose a Bachelor of Arts (BA) degree or a Bachelor of Science (BS) degree. The BA program allows more flexibility in choosing electives to complement the student's interests and career goals while the BS program, which requires more credits in geology, is designed to prepare students for postgraduate programs. The student in geology gains an understanding of the various terrestrial processes and features (mountains, oceans, volcanoes, glaciers); the immenseness of geologic time, the history of the earth and organisms that inhabit it (fossils); the role of water, fuel, and mineral resources in the development of civilization; and the close interaction between the geologic and organic environments.

Students choosing the environmental science BS integrate scientific knowledge from many disciplines in order to understand the interrelationships between human activities and the environment. Environmental science majors are exposed to the general principles of biology, chemistry, geology, meteorology, and physics. Thus, it is not a focus on one of these disciplines, but involves all of them and their interaction within environmental systems. Our department also offers an Environmental Studies degree with a focus on policy and a variety of research methods, while Environmental Science emphasizes the scientific method and lab work.

All six degree paths in our Department of Geography, Geology, and the Environment emphasize the collection, analysis, and representation of earth data at scales ranging from the local to the global. Opportunities abound for students to engage in fieldwork, internships, and in the production of research in our department. Recent field trips, course travels, and research expeditions have visited Costa Rica, Virgin Islands, Bahamas, Puerto Rico, Ontario, Newfoundland, New Mexico, Nevada, Washington, Colorado, South Dakota, and Maryland. If you enjoy learning about the Earth and its peoples and landscapes, either in your back yard or far away, please consider the opportunities our programs provide.

Career Opportunities

The environmental science and geology programs provide students with a base in liberal arts skills (critical thinking, writing, and speaking) and in analytical skills such as data collection in the field, in the library, and on the computer; the use of mapping, spreadsheet, and database software; and knowledge of laboratory procedures. Our alumni web page shows the wide variety of careers that our graduates have pursued in the private and public sector as well as graduate school.

Demand for the professional geologist comes from the needs of engineering, hydrogeologic and environmental firms, geological surveys, oil, gas and mining companies, state and national parks, museums, conservation agencies, planning commissions, and teaching institutions. A student who completes a bachelor of science in geology will have the basis for entry to graduate schools or for employment as a geologist. Students seeking state certification in secondary education must also complete requirements for a Master of Education degree.

Environmental science majors have entered several general fields:

- Industry and Consulting, monitoring and investigating the contamination of the air, land and water. Responsibilities could range from working to reduce potential environmental contamination in an industrial setting, to remediating contamination that resulted from past disposal practices.
- Local, State, or Federal Environmental Agencies, working to monitor, enforce, and develop environmental policy and regulations.
- Environmental Research, working to understand and solve environmental problems. Students would continue their education in a graduate program focusing on an area of interest to them.

Liberal Education Requirements*

Approximately one-half of a student's courses will be credited toward completing liberal studies requirements. The liberal studies program is designed to provide students with the breadth of knowledge expected of an educated person in our society. These courses compliment the depth of specialty acquired in a student's major.

The program contains seven critical goals or areas of study. For each area, students select one or two classes from a selection of "goal courses." In addition, in some areas of study, students select a course from a wide class selection identified as "enrichment courses." These courses provide the opportunity to broaden and deepen knowledge in the goal area. Lastly, co-curricular "Supporting Experiences," are identified. These activities and programs available to all students and encompass working on student publications, belonging to honorary societies or working with various special on-campus special interest groups.

Goal I: Basic Competencies

Goal II: The Arts

Goal III: Cultural Diversity and Global Perspective

Goal IV: Human Institutions and Interpersonal Relationships

Goal V: Natural Sciences and Mathematics

Goal VI: Our National Experience

Goal VII: Challenges of the Modern Age

**All SRU students must complete the liberal studies requirements, which are counted in the total credit hours required for graduation and may be contained in the Major Requirements previously listed.*

Specialized Information

The Department of Geography, Geology, and the Environment offers four minors which are open to all undergraduate, degree-seeking SRU students. The minors are Environmental Science, Geology, Geography, and Geographic Information Technology.

Teacher Certification

Teacher certification is earned through the master of education degree at Slippery Rock University. Students seeking secondary school teaching certification in geology must earn a bachelor of arts or a bachelor of science degree in environmental geosciences and contact the Department of Secondary Education/Foundations of Education concerning its graduate program in education. Information about this program, including prerequisites for admission, may be obtained from the secondary education/foundations of education office in 114 McKay Education Building.

Academic Programs 2004-2005

