



The materials of science are the materials of life itself. Science is part of the reality of living; it is the what, the how, and the why of everything in our experience. It is impossible to understand man without understanding his environment and the forces that have molded him physically and mentally. The aim of science is to discover and illuminate truth.

—Rachel Carson, Marine Biologist

### Degree Programs

The Geoscience Department offers a Bachelor of Science degree with a major in Geology that is divided into two tracks: Geology and Environmental. Either track gives students the necessary foundation to pursue a wide variety of careers. In addition, we offer a B.S. in Earth and Space Science Education for those students who are interested in teaching. The degrees and courses in our program emphasize hands-on learning and include outdoor instruction and student-oriented research.

### Special Opportunities

**Field Experiences** —In addition to on-campus instruction and class-related field trips, the department offers several regional geology field courses which take place in Newfoundland, the Yellowstone region, the Bahamas, and the American Southwest.

**Laboratory Research** —Numerous opportunities exist for students to develop valuable laboratory research experiences working closely with faculty mentors. We currently have active research grants with several state and federal agencies, including the National Science Foundation, Integrated Ocean Drilling Program, American Chemical Society, Antarctic Polar Program, and the U.S. Geological Survey.

**Geoscience Club** —The student-run Geoscience Club offers a chance for majors to develop a network with other students, faculty members, and professional geologists. The club helps coordinate the speaker series, sponsors local field programs, provides tutoring services, and attends Pittsburgh Geological Society meetings.

### Curriculum Overview and Career Opportunities

The B.S. degree in Geology/Geology Track is designed for students who are interested in pursuing any of the various subdisciplines in Geology, including Oceanography, Marine Geology, Sedimentology, Climate Change, Volcanology, Paleontology, Meteorology, Planetary Geology, and Geophysics. Our curriculum reflects various interdisciplinary links and provides the foundation needed to pursue a wide variety of career goals. Career options include teaching, graduate school/research, and employment as a professional geologist associated with a private business or an environmental firm or as a consultant for a federal or state agency.

The B.S. degree in Geology/Environmental Track is for students who wish to pursue a career in the environmental field. Geologists play a key role in dealing with environmental issues, and our Environmental Track prepares students to address various environmental problems. Graduates from this track will be prepared for direct entry into jobs with federal or state agencies and private environmental consulting firms, as well as continued studies in graduate school.

The department also serves public education by preparing qualified and certified teachers in the field of Earth and Space Sciences. Students enrolled in this program receive a B.S. in Education degree that provides multidisciplinary training in Geology, Oceanography, Meteorology, and Astronomy content areas, as well as specialized training in pedagogy—the science of teaching.

In each of our programs, Geoscience graduates are in high demand with nearly 100 percent placement rates upon graduation.

## Graduate School Opportunities

An undergraduate degree from IUP's Geoscience program provides excellent preparation for graduate school studies. Recent graduates have enrolled in programs at Columbia University, Boston University, Oregon State University, Michigan Technological University, and Syracuse University, among others.

## Special Scholarships and Academic Awards

The Geoscience Department offers opportunities for small scholarships to foster and support educational and research experiences for our students.

We offer scholarships from several different funds, some of which were established for students involved with a particular research emphasis, like the Paul A. Prince Oceanographic Fund or the Walter Granata Fund to support field-related experiences, while the IUP Geoscience Fund accepts applications for a broad range of scholarly activities, including travel to professional meetings or thesis research projects.

Awards are also presented each year to outstanding graduates who demonstrate exemplary research and academic and leadership qualities.

## What do IUP Geoscience graduates say about their education?

*"Ninety percent of our company (Exxon Mobil Exploration) is composed of people with degrees in geoscience and/or engineering."*

*—Tim Cejka, B.S. '73; vice president, Exxon Mobil Corporation, and president, Exxon Mobil Exploration Company*

*"In the IUP Geoscience labs, I learned many of the sediment handling techniques that I still use today."*

*—Kevin Jones, B.S. '03; Ph.D. candidate, Lamont-Doherty Earth Observatory, Columbia University*

*"I felt respected as a future colleague and learned to truly love science."*

*—Christa Ziegler, B.S. '01; Geologist, Exxon Mobil Corporation*

## Faculty

**Karen Rose Cercone (Ph.D., University of Michigan '84)**  
Hydrogeology, Earth Science Education

**Kenneth S. Coles (Ph.D., Columbia University '88)**  
Planetary Geology, Astronomy, Earth-Space Science Education

**Katherine L. Farnsworth (Ph.D., College of William and Mary '03)**  
Sedimentology, Coastal Processes

**Steven A. Hovan (Ph.D., University of Michigan '93)**  
Paleoceanography, Climate Change, Deep Sea Sedimentation

**Jonathan C. Lewis (Ph.D., University of Connecticut '98)**  
Structural Geology, Neotectonics, Seismotectonics

**Michael A. Poage (Ph.D., Dartmouth College '00)**  
Mineralogy/Petrology, Geochemistry, Soils, Antarctic Ecology

**John F. Taylor (Ph.D., University of Missouri '84)**  
Paleontology, Stratigraphy, Sedimentology