



GEOLOGY FACT SHEET

A Member of the Pennsylvania State System of Higher Education



Geology at Kutztown University of Pennsylvania is student-oriented!



Field trip to Adirondack Mountains

The B.S. Degree in Geology is designed for students anticipating graduate work or direct employment, ultimately as professional geologists. The degree requires a solid foundation in geology, chemistry, physics, and mathematics.

The B.S. Degree in Environmental Science/Geology is an inter-disciplinary program for students seeking graduate work or employment in Environmental Science. This major requires greater depth in biology and chemistry, and fewer geology courses than the Geology degree.

The B.S. Degree in Marine Science/Oceanography is a multi-disciplinary program combining marine science, geology, biology, chemistry, and physics for students anticipating graduate work or employment in the physical science facets of Marine Science.

Geologists Salaries: According to the U.S. Bureau of Labor Statistics, median average annual salary in May 2016 was \$ 89,780 for geoscientists and employment is projected to grow by 10% from 2014 to 2024, much faster than the average for all occupations. In 2016, the lowest 10 percent earned less than \$47,450, and the highest 10 percent earned more than \$189,020 annually.

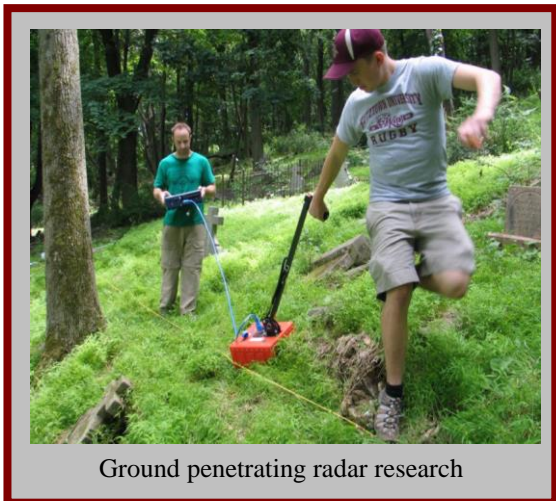
Faculty: Kurt Frieauf, Ph.D. Stanford University
Adrienne Oakley, Ph.D. University of Hawai'i at Mānoa
Jacob Sewall, Ph.D. University of California, Santa Cruz
Laura Sherrod, Ph.D. Western Michigan University
Edward Simpson, Ph.D. Virginia Polytechnic Institute
Sarah Tindall, Ph.D. University of Arizona



Economic geology class field trip to Arizona copper mine

Career Possibilities:

- Engineering applications,
- Water resources and remediation,
- Metal, oil and gas exploration and production,
- Coastal management,
- Natural hazard prediction
- Environmental protection,
- College/university teaching and research,
- Museum administration,
- Government agencies protecting the public's health and welfare (e.g., Forest Service, Geological Survey, EPA)



Ground penetrating radar research

Internships and jobs

Our students undertake internships with industries and governmental agencies in topics including groundwater monitoring/cleanup, acid mine remediation and other environmental and engineering geology projects. Students work in Alaska, Nevada, and Arizona prospecting for gold and copper, and explore for oil/natural gas throughout the U.S.

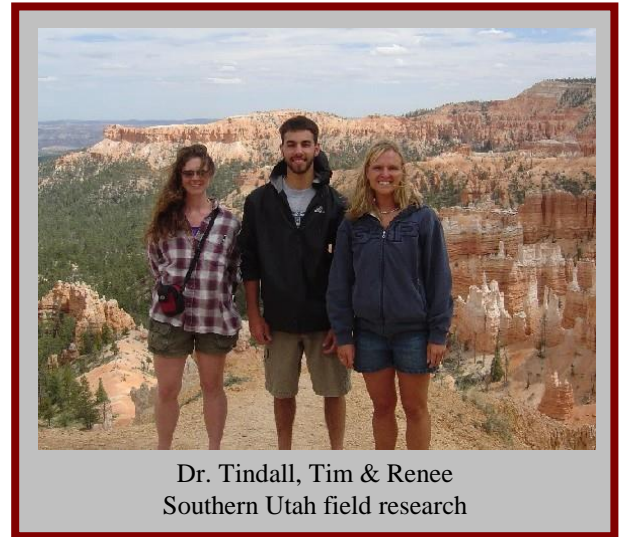
Sample of Graduate School Placement

KU students have recently gone to graduate school at Colorado School of Mines, New Mexico Institute of Mining and Technology, University of Texas-El Paso, University of Southern Illinois, East Carolina University, University of California-Riverside, Pennsylvania State University, Temple University, and University of Kansas.

Undergraduate Research

The geology program is committed to involving undergraduate students in cutting-edge scientific research. Highlights are listed below (please see the website for full publications details.)

- Every geology faculty member has an active research program involving KU undergraduate geology students.
- Research sites involve field work at U.S. and international sites, including our Marine Science Facilities on Wallops Island, VA, as well as in our structural geology, climate modeling, and geochemical labs on campus.
- Research and travel costs are frequently funded through the Undergraduate Research Committee.
- KU Geology students present their research results at national/international geoscience conferences to receive feedback on their research, network for futures jobs, and identify possible graduate school opportunities. Students have recently presented the American Geophysical Union, Geological Society of America, and Symposium on the Application of Geophysics to Engineering and Environmental Problems.
- KU Geology students win research awards at national and regional geoscience conferences.
- Publication of research results with their faculty advisors in national and international peer-reviewed journals provides KU Geology students with invaluable experience when applying for jobs and graduate school.



Examples of student-faculty research projects:

- High resolution climate simulation to aid in the development of comprehensive wildlife conservation plans
- Natural gas-induced mud volcanoes of southern Utah
- A deep-sea AUV magnetic and seismic study of the Hawaiian Jurassic crust beneath the Pacific Ocean
- Geophysical surveying to aid in the remediation of streams impacted by Abandoned Mine Drainage
- X-ray fluorescence analysis of hydrothermal alteration of Ertsberg porphyry drill core, Indonesia
- Geochemical analysis of Rare Earth Element carbonatite dike, Bayan Obo mining district, Inner Mongolia, China
- Trace fossil and paleoenvironmental interpretation of Paleozoic rocks of eastern Pennsylvania
- Physical model experiments to understand mountain-forming processes

Field trips

Hands-on field experience is one of the most critical teaching tools in geology. Class field trips to parts of Arizona, New York, Maryland, New Jersey, Virginia, West Virginia and Pennsylvania provide diverse geological experiences. For example, an annual five-day trip to the Adirondack Mountains immerses students in rock exposures that record more than a billion years of Earth history.

Geology Club

The Kutztown University Geology Club's mission is to bring together students with a common interest in the science of Earth processes by organizing experiential learning activities such as hikes, field trips, and picnics. The Geology Club students have organized their own field trips to Costa Rica, Peru, Hawaii, Yellowstone, Montana, West Virginia, Nova Scotia, Arizona, Puerto Rico, and Washington state.

