

GEOLOGY

Geology: The study of the Earth itself

Geology is the study of the earth itself: its form and composition, the changes it has undergone and the dynamic forces shaping it today. Geologists are interested in what makes volcanoes erupt, what forces produce mountain ranges, where earthquakes occur and how they can be predicted, how the landscape of the earth is formed, and where petroleum and minerals can be located.

Is Geology right for you?

- Do you like being outdoors?
- Are you interested in the natural world?
- Do you like to solve puzzles?
- Do you like to travel and see new places?
- Are you interested in the power of nature?

If you answered yes, you should consider a career in geology. Four Reasons to Study Geology at the University of Hawaii at Hilo:

- Specialization in volcanology and environmental earth science
- Small classes, personalized instruction, and high academic standards
- Erupting volcanoes add to the excitement. Wouldn't you like to spend time out-of-doors with a field notebook, watching a volcano erupt?
- Training opportunities with the Center for the Study of Active Volcanoes and the Hawaiian Volcano Observatory

Living in Hilo

Hilo is a small town surrounded by volcanoes, lush rainforests, high mountain peaks, and the warm tropical waters of the Pacific Ocean. The University of Hawaii at Hilo was named one of Outside Magazine's "Top 40 schools where you can hit the books and the backcountry...kayak or paddle canoes on Hilo Bay, surf at nearby Honoli'i beach; there's skiing and snowboarding on Mauna Kea. Geology majors watch a live volcano, Kilauea, erupt." (Outside Magazine, September 2003.)

Careers and Degree Programs

The study of geology prepares students for careers in environmental science, natural resources, and scientific research on diverse topics including volcanism and hydrology. Geology majors can pursue either a Bachelor of Science (BS) or Bachelor of Arts (BA) degree. Many of the students graduating from the BS program go on to pursue graduate degrees. Others become working professional geologists, employed by consulting companies or government agencies. The BA degree in Geology is intended for students who plan to pursue teacher certification, natural resource management, scientific/technical writing, and other fields combining a strong liberal arts background with science training. Graduates who wish to pursue secondary science education are eligible to apply to the University's post-baccalaureate Teacher Education Program.

What do Geology Majors Learn?

Geology majors learn about...

1. Plate tectonics
2. Origin and classification of rocks and minerals
3. The evolution of the Earth and its life over time
4. Physical properties of the Earth and crustal deformation
5. Processes that shape the surface of the Earth
6. Environmental hazards and issues

Both laboratory and field activities are important components of the program, and students can expect to develop their descriptive, analytical and interpretive skills. Hilo's unique natural setting on the slope of an active volcano makes it an ideal place to experience firsthand the more dynamic aspects of geology. Students also acquire a strong background in the basic sciences as they address geological problems using the tools of chemistry, physics, and mathematics.

Requirements for Bachelor of Science in Geology

Geol 111 - 111L	Understanding the Earth	4
Geol 112 - 112L	History of the Earth and Its Life	4
Geol 212	Earth Materials I: Minerals	4
Geol 320	Earth Materials II: Igneous/Metamorphic Rocks	4
Geol 330	Deformation of the Earth	3
Geol 340	Sedimentary Processes	3
Geol 342	Earth Surface Processes	3
Geol 370	Field Methods	3
Geol 495A-495B	Seminar	2
Geol 300 or 400	Geology Elective Credits	12
Chem 124 - 124L	General Chemistry I	5
Chem 125 - 125L	General Chemistry II	5
Phys 170 - 170L	General Physics I	5
Phys 171 - 171L	General Physics II	5
Math 205	Calculus I	4
Math 206	Calculus II	4
Eng 225	Professional Writing	3

Requirements for Bachelor of Arts in Geology

The Bachelor of Arts degree is similar to the Bachelor of Science degree, except that students take fewer courses in mathematics, chemistry and physics. In addition, the BA is broader and more flexible, and students are encouraged to take courses in oceanography, astronomy, meteorology, and soils.

Faculty

James L. Anderson, Ph.D.
University of Southern California
Structural Geology / Petrology

Ken Hon, Ph.D.
University of Colorado
Volcanology / Mineralogy

Jené D. Michaud, Ph.D.
University of Arizona
Hydrology / Surface Processes

Art Jolly, Ph.D.
University of Alaska Fairbanks
Seismology / Geophysics

Alumni Perspectives

"The small class sizes in the UHH geology department offer opportunities that larger universities with graduate programs can't provide. The professors are more like mentors than large classroom lecturers. My UHH geology degree gave me the ability to start an awesome career as a geologist with a geotechnical firm directly out of college."

- *Gail Ostrander*
Staff Geologist, Geotechnical Department, Padre Associates, Inc.; Southern California

"My Ph.D. is in geophysics and geodesy. My research in the South Pacific, South America and Antarctica began with projects at Kilauea led by Professor Jim Anderson at UHH. The department has modern facilities, and the emphasis was on personal attention. I recommend the UH Hilo geology program."

- *David A. Phillips*
Researcher, UNAVCO; Boulder, Colorado

Contact Information

Department of Geology
University of Hawai'i at Hilo
200 W. Kawili St.
Hilo, HI 96720
Tel: (808) 974-7411/974-7383
Email: jene@hawaii.edu

Visit our website at :
<http://www.uhh.hawaii.edu/~geology>