Many people think that the geological sciences involve just the study of rocks, but the field is much more diverse than that. Courses in GES cover a wide range of topics and the faculty who teach those courses have knowledge and expertise in a broad range of subjects.

**Why major in GES?**

**Geological & Environmental Sciences includes**

- Earth’s history and the evolution of life
- Earth’s past climate as recorded in ice, marine sediments, and terrestrial sediments
- Cycling of nutrients like carbon and nitrogen
- The processes that shape the Earth’s landscapes: mountain building, subsidence, erosion
- The chemistry and physics of earth materials, including rocks, minerals, soils, magma, water, ice, and sediments
- Sources of energy resources, and economic minerals
- Natural hazards like volcanoes, earthquakes, and landslides
- Contamination of groundwater, soil, lakes, reservoirs, and rivers
- Geologic engineering, modeling, and simulation
- Resource depletion and sustainable practices
- Regional geologic histories and plate tectonics
- The relationships between geology and population
  - How geology affects human health and society
  - Planetary geology and astrobiology
  - Interactions between microbes and earth materials

... and that's just the beginning

**Field Trips**

Our location near the Pacific coast, the Sierra Nevada, and the San Andreas fault system provides a fantastic setting for field studies, and most GES courses include field trips. You’ll go everywhere from the beach to study wave action and erosion to Death Valley and beyond.

**Research**

Most GES majors take advantage of multiple opportunities to conduct in-depth research with a faculty member. Recent research projects have included everything from Hawaiian coral analysis to mapping in Nevada to analyzing GIS data to isotopic lab work.

**Career Preparation**

A GES major or minor prepares you for a career in environmental engineering, land use planning, law, public service, teaching, graduate studies in earth sciences, and many other professions that require an understanding of the Earth and a background in science.

Interested? Visit us in Building 320, Room 114 or on the web: [http://pangea.stanford.edu/GES/undergraduates](http://pangea.stanford.edu/GES/undergraduates)