

GEOLOGICAL SCIENCES

This major includes a spectrum of disciplines focused on understanding the processes that influence the tectonics and environment of the planet, on using this understanding to read the record of earth history written in rocks and sediments, and on developing models that can be used to predict future changes due to natural phenomena and recent perturbations caused by humans. This degree prepares students for careers in geoscience industries, government agencies, and graduate study, as well as business, law, medicine, teaching, and public policy.

BACHELOR OF SCIENCE (BS) GENERAL OVERVIEW

One introductory course. Examples include:

- Planet Earth
- Oceanography
- Crises of a Planet
- Climate Change
- Earthquakes

Choose one pair from the following options:

- Physics for the Life Sciences A & B
- Fundamentals of Physics I & II
- Two semesters of General Biology

Seven elective courses. Examples include:

- Structural Geology and Tectonics
- Data Analysis in the Earth & Environmental Sciences
- Geobiology and Astrobiology
- Paleontology and Evolution in Deep Time

Eight required courses:

- General Chemistry A & B
- Calculus I and II
- Minerals and Earth Systems
- Undergraduate Team Research
- Field Geology *or* Directed Research
- Senior Thesis

ACADEMIC OPPORTUNITIES

Statewide California Earthquake Center: Geology majors in their sophomore, junior, or senior year are eligible to intern with the SCEC headquarters at USC.

Earth Science Research Apprenticeship Program (ESRAP): Students have the opportunity to apply for and receive funding to conduct their own research with the guidance of a faculty member.

Maymester: Our “Maymester” classes (run as GEOL 465 – Field Geology) are a major highlight of our field education, covering a range of topics that vary on a yearly basis — typically alternating between a more environmental and more geological focus every other year. Recent locations have included Alaska and Greece.