

# Geology

California Lutheran University's Geology Department offers a challenging curriculum for students who are interested in exploring for energy and economic resources, analyzing geologic hazards and mitigating the human impact on the environment.

The program emphasizes learning through course work, as well as through extensive fieldwork. The department works closely with the other related disciplines of chemistry, physics, biology, mathematics and geography. Through their studies and research projects, Cal Lutheran geology majors will learn how the Earth's processes and life have changed over time.

Southern California offers a unique opportunity for Cal Lutheran students to study firsthand many of the geologic wonders of the world. Numerous field trips are offered during the year to places such as Death Valley, the Grand Canyon, Owens Valley and the eastern Sierra Nevada.

Along with being accepted in graduate schools around the country, many Cal Lutheran geology majors have entered careers in petroleum geology, geophysics and the environmental geology fields. In both the public and private sectors, geologists are hired to study groundwater pollution, earthquake hazards and landslides, as well as to work in the mining industry, petroleum industry or in research laboratories.

## Bachelor of Arts in Geology

35 credits minimum, 22 credits upper division.

GEOL 111/111L	Physical Geology and Physical Geology Lab	4
GEOL 112/112L	Historical Geology and Historical Geology Lab	4
GEOL 311/311L	Crystallography and Mineralogy and Crystallography and Mineralogy Lab	5
GEOL 312/312L	Petrology and Petrology Lab	5
GEOL 331/331L	Invertebrate Paleontology and Invertebrate Paleontology Lab	4
GEOL 332/332L	Stratigraphy and Sedimentation and Stratigraphy and Sedimentation Lab	4
GEOL 335/335L	Structural Geology and Structural Geology Lab	5
GEOL 421	Field Geology	4
Total Hours		35

## Required Supporting Courses

PHYS 201/201L	Mechanics and Thermodynamics-Algebra and Mechanics and Thermodynamics-Algebra Lab	4
CHEM 151/151L	General Chemistry and General Chemistry Lab	5
MATH 251	Calculus I	4
Total Hours		13

## Bachelor of Science in Geology

38 credits minimum, 30 credits upper division.

GEOL 111/111L	Physical Geology and Physical Geology Lab	4
GEOL 112/112L	Historical Geology and Historical Geology Lab	4
GEOL 311/311L	Crystallography and Mineralogy and Crystallography and Mineralogy Lab	5
GEOL 312/312L	Petrology and Petrology Lab	5
GEOL 331/331L	Invertebrate Paleontology and Invertebrate Paleontology Lab	4
GEOL 332/332L	Stratigraphy and Sedimentation and Stratigraphy and Sedimentation Lab	4
GEOL 335/335L	Structural Geology and Structural Geology Lab	5
GEOL 421	Field Geology	4
GEOL 485	Seminar	2-4
Total Hours		37-39

## Required Supporting Courses

PHYS 201/201L	Mechanics and Thermodynamics-Algebra and Mechanics and Thermodynamics-Algebra Lab	4
PHYS 202/202L	Electricity, Magnetism, and Optics - Algebra and Electricity, Magnetism, and Optics - Algebra Lab	4
CHEM 151/151L	General Chemistry and General Chemistry Lab	5
CHEM 152/152L	General Chemistry II and General Chemistry II Lab	5

MATH 251	Calculus I	4
MATH 252	Calculus II	4
Total Hours		26

## Minor in Geology

16 credits minimum, 8 credits minimum at upper division level.

GEOL 111	Physical Geology	3
GEOL 111L	Physical Geology Lab	1
GEOL 112	Historical Geology	3
GEOL 112L	Historical Geology Lab	1
Upper Division Geology Credits		8
Total Hours		16