

GEOLOGY

Bachelor of Science degree with a major in Geology

Bachelor of Arts degree with a major in Geology

**Bachelor of Arts degree
with a major in Geology** (Geoscience
Education option)—see Science
Education.

Minor in Geology

For the master of science degree program,
see Environmental Systems.

Department Chair

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Department of Geology

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The Program

The BS degree in geology emphasizes inde-
pendent research at the senior level and
is recommended for students who plan to
enter graduate school.

The BA degree in geology is for students
seeking:

- preparation to qualify them for employ-
ment in private industry or government
agencies
- a liberal arts degree in geology
- broad understanding of the earth sci-
ences

Humboldt's natural setting offers many field
opportunities for instruction and research.
Students work on projects directly with fac-
ulty, who encourage their involvement.

At Humboldt State you will also be able
to use extensive research tools including
petrographic microscopes, an x-ray diffrac-
tometer, a high-pressure and temperature
experimental petrology lab, geophysical
exploration equipment and a real-time kine-
matic GPS unit.

Career opportunities: field geologist, geo-
statistician, hydrogeologist, reservoir
engineer, map editor, petroleum geologist,
geophysicist, park naturalist, teacher, min-
ing geologist, engineering geologist, marine
geologist, paleontologic curator, research
geologist, lab researcher, remote sensing
analyst, hydrologist.

Preparation

In high school take courses in mathematics,
statistics, computer programming, biology,
chemistry, and physics. Prepare to write ef-
fectively and speak precisely. Competence in
a language other than English is desirable.

REQUIREMENTS FOR THE MAJOR

Lower Division

GEOL 109	General Geology
CHEM 109	General Chemistry
CHEM 110	General Chemistry
MATH 109	Calculus I
MATH 110	Calculus II

One of the following two series:

- PHYX 106 College Physics:
Mechanics & Heat
- PHYX 107 College Physics:
Electromagnetism
& Modern Physics

OR

- PHYX 109 General Physics I:
Mechanics
- PHYX 110 General Physics II:
Electricity, Heat

One of the following:

BIOM 109	Introductory Biometrics
MATH 210	Calculus III
STAT 108	Elementary Statistics

Upper Division

GEOL 310	Mineralogy & Optical Crystallography
GEOL 311	Petrography
GEOL 320	Invertebrate Paleontology
GEOL 322	Stratigraphy & Sedimentation
GEOL 330	Structural Geology
GEOL 350	General Geomorphology
GEOL 470	Field Methods
GEOL 471	Field Mapping Techniques
GEOL 472	Extended Field Mapping
GEOL 473	Geologic Report Writing
GEOL 485	Seminar
GEOL 490, 491, 492	Senior Thesis [BS degree only]

Five units of approved upper division geology
areas of specialization, including at least one
of the following:

GEOL 414	Igneous & Metamorphic Petrology
GEOL 415	Sedimentary Petrology
GEOL 422	Paleoecology
GEOL 425	Crustal Evolution & Tectonics
GEOL 430	Advanced Structural Geology
GEOL 445	Geochemistry
GEOL 457	Engineering Geology
GEOL 460	Solid Earth Geophysics
GEOL 482	Advanced Instrumental Methods in Geology (minimum of 2 units)
GEOL 550	Fluvial Processes
GEOL 551	Hillslope Processes
GEOL 553	Quaternary Stratigraphy
GEOL 555	Quaternary Tectonics
GEOL 556	Hydrogeology
GEOL 558	Geomorphology of Soils
GEOL 561	Applied Geophysics

REQUIREMENTS FOR THE MINOR

GEOL 109	General Geology, or
GEOL 108	The Dynamic Earth

14 additional units of approved geology
courses, of which 11 units must be upper
division

