# Bachelor of Arts in Geology

The B.A. in Geology, General Geology Concentration is recommended for students planning a career in public service and education (e.g. government agencies, park rangers and K-12 science teaching), non-profit or non-governmental environmental organizations, or pre-environmental law. This Concentration has maximum elective flexibility to produce an experience tailored to the needs of the student.

The B.A. in Geology, Field and Applied Geology Concentration is recommended for students planning to become professional geologists employed by environmental and geo-technical firms, governmental agencies, oil and mining companies, and for those students planning to pursue a graduate degree in geology. Emphasizing field and applied geology courses, and experiential learning, this program is designed to permit students to meet existing requirements for Professional Licensing.

Geology majors must earn a grade of "C-" (1.7) or better in all required geology courses for those courses to satisfy the degree requirements for a B.A. degree in Geology. No more than 3 units of elective may be from supervision courses. At least 3 units of elective must be from GEOL courses. Students may not earn credit for both concentrations.

## Requirements (69-75 units)

### Total units required for graduation: 120

## Requirements for the B.A. in Geology

### Lower-division requirements (22-25)

- Choose one of the following courses, with laboratory: 4-5
  - CHEM 2050 Survey of General Chemistry
  - CHEM 2050L Survey of General Chemistry Laboratory
  - CHEM 2100 General Chemistry I
  - CHEM 2100L General Chemistry I Laboratory

- Choose one from the following (fulfills GE category B4): 3-4
  - MATH 1401 Accelerated Preparation for Calculus
  - MATH 1601 Modeling with Calculus

- Choose one of the following courses, with laboratory: 4-5
  - PHYS 1000 & 1000L Physics in the Modern World and Physics in the Modern World Lab
  - PHYS 2000 & 2000L Introduction to Physics I and Introduction to Physics I Lab
  - PHYS 2500 & 2500L General Physics I and General Physics I Lab

### Choose one of the following courses: 3

- GEOL 1000 Introductory Geology
- GEOL 1020 Plate Tectonics: Key to Understanding Earthquakes, Volcanoes and Tsunami
- GEOL 1060 Environmental Geology and Geological Hazards

### Choose one of the following laboratories: 1

- GEOL 1000L Introductory Geology Laboratory
- GEOL 1060L Environmental Geology and Geological Hazards Laboratory

## Upper-division requirements (34)

- GEOL 2000 Interpreting Earth Systems History: Stories from an Ancient Planet
- GEOL 2500 Geology of California

### Concentrations (13-16 units)

#### General Geology Concentration (13 units)

(Email Code GEOL)

### Requirements (13)

A minimum of 13 units chosen from the following (no more than 3 units from supervision courses):

- GEOL 3100 Introduction to Geologic Mapping
- GEOL 3200 Mineralogy
- GEOL 3220 Introduction to Geochemistry
- GEOL 3240 Igneous and Metamorphic Petrology
- GEOL 3300 Sedimentary Geology: Principles and Applications
- GEOL 3600 Structural Geology
- GEOL 3700 Groundwater Hydrology
- GEOL 3990 Geological Research Design
- GEOL 4000 Undergraduate Geologic Research
- GEOL 4900 Senior Seminar

### Total Units 13

#### Field and Applied Geology Concentration (16 units)

(Email Code: GEFA)

### Requirements (16)

- GEOL 4100 Engineering Geology

### Six units chosen from:

- GEOL 3902 Advanced Field Geology (2)
- GEOL 3903 Advanced Field Geology (3)
- GEOL 3904 Advanced Field Geology (4)
- GEOL 3906 Advanced Field Geology (6)
- GEOL 5280 Digital Mapping and GIS for Scientists (3)

A minimum of 6 units chosen from:

- GEOL 4400 Geomorphology (3)
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>GEOL 5600</td>
<td>Earth Resources (4)</td>
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<tr>
<td>GEOG 2250</td>
<td>Introduction to Geographic Information Systems and Cartography</td>
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<tr>
<td>GEOL 3750</td>
<td>Field Methods in Hydrology (3)</td>
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<tr>
<td>GEOL 4200</td>
<td>Topics in Applied Geology (3)</td>
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<td>GEOL 4200L</td>
<td>Laboratory for Topics in Applied Geology (1)</td>
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<tr>
<td>GEOL 5220</td>
<td>Neotectonics and Seismic Hazard Analysis (4)</td>
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<tr>
<td>GEOL 5400</td>
<td>Environmental Hydrology (3)</td>
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<tr>
<td>GEOL 5620</td>
<td>Site Investigation, Siting, and Case Histories in Engineering Geology (4)</td>
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Total Units 16