



# Geology A.S. Degree

Geology is the study of the origin and evolution of the earth, utilizing the principles of mathematics, chemistry, physics, and biology. The concept of geologic time and uniformitarianism principles help geologists understand the processes that shape the earth and its environments. This degree is designed to meet common lower-division requirements for a major in Geology.

**Total Units: 61**

## First Year

### Semester 1

**16 Units**

| COURSE  | UNITS | PRE-REQS <sup>^</sup>                    | SEMESTERS OFFERED* | GE AREA |
|---|-------|--|--------------------|---------|
| <b>GEOL 300</b> <sup>Z</sup><br>Physical Geology                                  | 3     | Co-req:<br>GEOL 301                      | F, S               |         |
| <b>GEOL 301</b> <sup>Z</sup><br>Physical Geology<br>Laboratory                    | 1     | Pre- or co-<br>req: GEOL<br>300          | F, S               |         |
| <b>CHEM 300</b> <sup>1</sup> <sup>Z</sup><br>Beginning Chemistry                  | 4     | Elementary<br>Algebra or<br>higher       | F, S, Su           |         |
| <b>MATH 335</b> <sup>2</sup> <sup>Z</sup><br>Trigonometry with<br>College Algebra | 5     | MATH 120                                 | F, S, Su           |         |
| <b>CRC Area II(a)-<br/>Written<br/>Communication</b>                              | 3     | Recommend<br>meeting with<br>a counselor | F, S, Su           |         |

<sup>Z</sup> At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the [ZTC page of the college website](#).

<sup>1</sup> CHEM 300 may be waived with 1 year of HS CHEM w/ lab and MATH 120 or equivalent. CHEM 300 is pre-req for CHEM 400. Recommend meeting with a counselor to see which course you need to start with.

<sup>2</sup> MATH 335 is pre-req for MATH 370; MATH 370 is pre-req for MATH 400; Recommend meeting with a counselor to see which course you need to start with.

### Semester 2

**15 Units**

## Career

### Options/Outlook:

Geological Sample Test

Technicians test or analyze geological samples, crude oil, or minerals to detect the presence of petroleum, gas, or mineral deposits indicating the potential for exploration or production or to determine physical or chemical properties to ensure that products meet quality standards. **Career opportunities require more than an associate degree.**

### A sample of reported job titles:

Core Inspector, Electron Microprobe Operator, Environmental Field Services Technician, Environmental Sampling Technician, Laboratory Technician, Materials Technician, Organic Section Technical Lead, Physical Science Technician, Quality Control Technician (QC Technician), Research Associate

### Projected job openings in California (2020-2030):

150

| COURSE   | UNITS | PRE-REQS <sup>^</sup>   | SEMESTERS OFFERED* | GE AREA |
|--|-------|---|--------------------|---------|
| <b>GEOL 310</b> <b>Z</b><br>Historical Geology                       | 3     | Advisory:<br>GEOL 300<br>or 305   | Su                 |         |
| <b>GEOL 311</b> <b>Z</b><br>Historical Geology<br>Laboratory         | 1     | Co-req:<br>GEOL 310;<br>Advisory:<br>GEOL 300<br>& 301                                  | Su                 |         |
| <b>CHEM 400</b> <b>Z</b><br>General Chemistry I                      | 5     | Elementary<br>Algebra and<br>CHEM 300,<br>305, 309 or<br>1 yr of HS<br>Chem with<br>Lab | F, S, Su           |         |
| <b>MATH 370</b> <sup>1</sup> <b>Z</b><br>Pre-Calculus<br>Mathematics | 5     | MATH 335  | F, S               |         |
| <b>CRC Area III(a)-<br/>Physical Edu<br/>Activity</b>                | 1     |   | F, S, Su           |         |

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<sup>1</sup> MATH 335 is pre-req for MATH 370; MATH 370 is pre-req for MATH 400; Recommend meeting with a counselor to see which course you need to start with.

## Year 2

### Semester 3

16 Units

| COURSE   | UNITS | PRE-REQS <sup>^</sup> | SEMESTERS OFFERED* | GE AREA |
|--|-------|-----------------------|--------------------|---------|
| <b>CHEM 401</b> <b>Z</b><br>General Chemistry II   | 5     | CHEM 400              | F, S               |         |
| <b>MATH 400</b> <b>Z</b><br>Calculus I             | 5     | MATH 370              | F, S               |         |
| <b>CRC Area III(b)-Life<br/>Development Skills</b> | 3     |                       | F, S, Su           |         |
| <b>CRC Area I-<br/>Humanities</b>                  | 3     |                       | F, S, Su           |         |

## Projected growth in California (2020-2030):

9% growth

## Median Salary in California with advanced degree (2021):

\$61,930/yr

## Source:

<https://www.onetonline.org/link/summary/19-4041.02>

## Transfer notes:

Please meet with a counselor for specific transfer course evaluation or transferring to a specific 4-year institution.

## General Education (GE):

Non-specified GE courses identified by CRC Area, CSU Area or IGETC Area without pre- or co-requisite can be taken at any semester.

## Honors option:

The CRC Honors Program is designed specifically for academically accomplished students and for students with the potential for high achievement. Students who complete 15 units or more in honors-designated courses will earn special recognition as an Honors Scholar, a distinction that may entitle the student to guaranteed transfer and scholarship opportunities at select transfer colleges and universities.

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## Semester 4

14 Units

| COURSE   | UNITS | PRE-REQS <sup>^</sup> | SEMESTERS OFFERED* | GE AREA |
|--|-------|-----------------------|--------------------|---------|
| <b>MATH 401</b> <b>Z</b><br>Calculus II                        | 5     | MATH 400              | F, S               |         |
| <b>CRC Area V(a)-<br/>American<br/>Institutions</b>            | 3     |                       | F, S, Su           |         |
| <b>CRC Area V(b)-<br/>Social &amp; Behavioral<br/>Sciences</b> | 3     |                       | F, S, Su           |         |
| <b>CRC Area VI-<br/>Ethnic/Multicultural<br/>Studies</b>       | 3     |                       | F, S, Su           |         |

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<sup>^</sup>You must have passed the prerequisite course(s) with a "C" or better; Corequisite must be taken during the same semester; Advisory means it is recommended but not required to enroll in the course.

\*(O) = online available (P) = partially online

## About this program map:

This program map represents one possible pathway to complete the program. Please see a counselor to create an education plan customized to meet your needs. This map is not a guarantee of course availability or financial aid applicability.

## Zero Textbook Costs (ZTC):

The Zero Textbook Costs designation and logo are added to any course that provides free access to all required instructional materials. These are typically shared with students through Canvas. Courses that are designated as ZTC may still require students to purchase supplemental materials such as lab coats, a calculator, art supplies, etc. See full definitions and searching tips on the [Zero Textbook Costs page](#) of the college website.

Catalog Year: 2025-2026

Counselor Contact: Anna Davtian or Ray, Mapeso | Faculty Contact: Hiram

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