

## Geology (GEOL)

Contact the Earth, Space, and Aviation Sciences Department for further information.

(760) 744-1150, ext. 2512

Office: NS-110G

### Associate in Science Degrees -

AS Degree requirements are listed in Section 6 (green pages).

- Geology

### Associate in Science for Transfer -

AA-T, IGTEC, and CSUGE requirements are listed in Section 6 (green pages).

- Geology

## PROGRAMS OF STUDY

### Geology

Provides the student with sufficient background to begin upper division coursework and will prepare the student for entry-level jobs that require basic geologic knowledge. The student is advised to check with the school to which he/she may wish to transfer for additional courses which may be required.

### A.S. DEGREE MAJOR

#### Program Requirements

##### Group One

	Units
GEOL 100 Physical Geology	3
GEOL 100L Basic Geology Laboratory	1
GEOL 150 Dinosaurs and Earth History	3
GEOL 150L Dinosaurs and Earth History Laboratory	1
GEOL 195 Regional Field Studies in Geology	2

##### Group Two (Select at least two sets of courses listed below)

###### Set 1

MATH 140 and Calculus/Analytic Geometry, First Course	5
MATH 141 Calculus/Analytic Geometry, Second Course	4

###### Set 2

PHYS 120 and PHYS 121 General Physics	8
or	
PHYS 230 and PHYS 231 Principles of Physics	10

###### Set 3

CHEM 110 General Chemistry	3
CHEM 110L General Chemistry Laboratory	2
CHEM 115 General Chemistry	3
CHEM 115L General Chemistry Laboratory	2

##### Group Three (Select at least 8 units)

Any other courses in Group Two not taken above	8-10
GEOL 110 General Geology: National Parks	3
GEOL 125 California Geography	3
GEOL 195 Regional Field Studies in Geology	1, 2, 3
GEOL 197 Geology Topics	1, 2, 3
GEOL 295 Directed Study in Geology	1, 2, 3
ASTR 100 Principles of Astronomy	3
BIOL 100 General Biology	4
MATH 205 Calculus/Analytic Geometry, Third Course	4
MATH 206 Calculus/Differential Equations	4
OCN 100 Oceanography	3
OCN 100L Oceanography Laboratory	1
PHYS 232 Principles of Physics	4

**TOTAL UNITS**

**35 - 38**

## Geology

Geology is the study of the dynamic processes that shape Earth. Geology incorporates a multidisciplinary approach to describe and solve a variety of problems, including those related to human interaction with natural systems, geologic hazards, and resources. Students who successfully complete this degree will be prepared for transfer into upper division coursework in geology and will meet transfer requirements for admission to CSU.

### AS-T TRANSFER MAJOR

#### Program Requirements

GEOL 100 Physical Geology	3
GEOL 100L Geology Laboratory	1
GEOL 150 Dinosaurs and Earth History	3
GEOL 150L Dinosaurs and Earth History Laboratory	1
CHEM 110 General Chemistry	3
CHEM 110L General Chemistry Laboratory	2
CHEM 115 General Chemistry	3
CHEM 115L General Chemistry Laboratory	2
MATH 140 Calculus with Analytic Geometry, First Course	5
MATH 141 Calculus with Analytic Geometry, Second Course	4

**TOTAL UNITS**

**27**

#### Additional Recommended Preparation

PHYS 230 Principles of Physics	5
PHYS 231 Principles of Physics	5
BIOL 100 General Biology	4

### COURSE OFFERINGS

#### GEOL 100 Physical Geology (3)

3 hours lecture

**Note:** Together with GEOL 150, a prerequisite to upper division courses in Geology

**Transfer acceptability:** CSU; UC

C-ID GEOL 100

Geology is the study of Earth and the processes that shape the world around us. Geologic concepts and principles provide a framework for understanding the dynamics of Earth's interconnected cycles and processes. Topics covered will include: The origin and composition of the earth, formation and classification of minerals and rocks, tectonic processes, concept of geologic time, geologic processes that shape Earth's landscape, and the influence of geology on society.

#### GEOL 100L Basic Geology Laboratory (1)

3 hours laboratory

**Prerequisite:** A minimum grade of 'C' in GEOL 100, or concurrent enrollment in GEOL 100

**Note:** May be offered as a field laboratory; satisfies lab requirement in Physical Science

**Transfer acceptability:** CSU; UC

C-ID GEOL 100L

Laboratory and field identification of rocks and rock forming minerals. Study of geologic processes by means of geologic and topographic maps.

#### GEOL 110 General Geology: National Parks and Monuments (3)

3 hours lecture

**Transfer acceptability:** CSU

Geologic history and processes of formation of our natural landscape. Principles of physical and historical geology as revealed in the structure, stratigraphy, and rock types of the parks and monuments.

#### GEOL 120 Planets, Moons, and Comets (3)

3 hours lecture

**Note:** Cross listed as ASTR 120

**Transfer acceptability:** CSU; UC

The astronomy and geology of the solar system, observations, dynamics, relativistic ideas, including theories of formation and evolution. Comparative survey of the atmospheres, surface features, and interiors of planets and satellites. Minor objects, such as comets and asteroids, will be included.

**GEOL 150 Dinosaurs and Earth History (3)**

3 hours lecture

**Prerequisite:** A minimum grade of 'C' in GEOL 100**Transfer acceptability:** CSU; UC

C-ID GEOL 110

Principles of historical geology. The origin and evolution of Earth and its biosphere, incorporating global tectonics, stratigraphy, fossils, biological evolution, geologic dating, and the processes that have influenced paleogeography during the past 4.6 billion years. Together with GEOL 100, a prerequisite to upper division courses in geology.

**GEOL 150L Dinosaurs and Earth History Laboratory (1)**

3 hours laboratory

**Prerequisite:** A minimum grade of 'C' in GEOL 150, or concurrent enrollment in GEOL 150**Transfer acceptability:** CSU; UC

C-ID GEOL 110L

Lab component exploring the principles of historical geology. Activities investigate the origin and evolution of Earth and its biosphere, global tectonics, stratigraphy, fossils, biological evolution, geologic dating, and the processes that have influenced paleogeography during the past 4.6 billion years.

**GEOL 195 Regional Field Studies in Geology (1, 2, 3)**

½, 1½ hours lecture - 1½, 4½ hours laboratory

**Prerequisite:** A minimum grade of 'C' in GEOL 100, 110 or 125 or GEOG 100**Transfer acceptability:** CSU; UC – Credit determined by UC upon review of course syllabus.

C-ID GEOG 160

Extended field studies of the geology of western North America over weekends and during vacation and summer sessions. Emphasis upon field observation and interpretation of rock types, landforms, and structure. Localities visited may vary from year to year.

**GEOL 197 Geology Topics (1-3)**

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.

**Note:** Graded only**Transfer acceptability:** CSU

Topics in Geology. See Class Schedule for specific topic offered. Course title will designate subject covered.

**GEOL 295 Directed Study in Geology (1, 2, 3)**

Arrange 3, 6, or 9 hours laboratory with department chairperson

**Prerequisite:** A minimum grade of 'C' in GEOL 150**Transfer acceptability:** CSU – UC Credit determined by UC upon review of course syllabus.

Individual study in field, library, or laboratory for interested students.

**German (GERM)**

Contact the World Languages Department for further information.

(760) 744-1150, ext. 2390

Office: H-201

**COURSE OFFERINGS**

For students who have completed foreign language course work at the high school level, and need clarification regarding placement in college level course work, contact the Counseling Center. Universities have varying policies regarding the granting of transfer credit when there is a combination of high school and college level course work.

**GERM 101 German I (5)**

5 hours lecture - 1 hour laboratory

**Note:** Corresponds to two years of high school study.**Transfer acceptability:** CSU; UC

This course is the first semester of German. This elementary level course is a study of the German language and German-speaking cultures, with emphasis on the development of communicative skills and basic structures. Course combines

in-class instruction and practice with self-paced study in the Foreign Language Laboratory. This beginning-level course is for students with no previous course-work in German.

**GERM 102 German II (5)**

5 hours lecture - 1 hour laboratory

**Prerequisite:** A minimum grade of 'C' in GERM 101 or two years of high school German**Transfer acceptability:** CSU; UC

This course is the second semester of German. This elementary level course is a study of the German language and German-speaking cultures, with continued emphasis on the development of communicative skills and basic structures. Course combines in-class instruction with self-paced study in the Foreign Language Laboratory.

**GERM 201 German III (5)**

5 hours lecture - 1 hour laboratory

**Prerequisite:** A minimum grade of 'C' in GERM 102 or three years of high school German**Transfer acceptability:** CSU; UC

This course is the third semester of German. This intermediate level course is a study of the German language and German-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in German. Class is largely conducted in German.

**GERM 202 German IV (5)**

5 hours lecture

**Prerequisite:** A minimum grade of 'C' in German 201 or four years of high school German**Transfer acceptability:** CSU; UC

This course is the fourth semester of German. This intermediate level course is a study of the German language and of special topics on the culture of the German-speaking world. Emphasis is on further development of cross-cultural awareness, as well as, the development of oral, listening, reading and writing skills in order to improve communicative competence in German. Class is largely conducted in German.

**Graphic Communications (GC)**

See also **Graphic Communications - Imaging & Publishing, and Graphic Communications - Multimedia & Web**

Contact the Graphic Communications Department for further information.

(760) 744-1150, ext. 2452

Office: MD-114

For transfer information, consult a Palomar College Counselor.

**COURSE OFFERINGS****GC 100 Graphic Communications (3)**

3 hours lecture

**Transfer acceptability:** CSU

Explores the history and theory of effective mass communication from prehistoric cave art, to invention of the printing press, and modern graphic communication techniques using computers and the Internet. The class examines communication models revolving around imagery, type, delivery systems, and technology. The students will be able to understand and establish the effects of a clear visual message. Learning modules include slideshow, field trips, guest speakers, discussion, lectures and hands-on application with computers and the Internet to promote an understanding of graphic communications and visual messages and their impact on society.