

# GEOLOGY



## Associate Degree for Transfer

*A Degree with a Guarantee.<sup>SM</sup>*

### Student Transfer Achievement Reform (STAR) Act (SB1440)

#### Associate in Science Transfer Preparation\* (Major Code: 01785)

Geology is the study of the composition, structure, and evolution of the Earth. It is an interdisciplinary science that combines geological observations and concepts with those of biology, chemistry, physics, and mathematics. This department explores rocks, minerals, fossils, and the internal and external geophysical processes that continue to shape the Earth and its environments. Specialization within the field of geology ranges from engineering and geophysics to paleontology and marine geology.

## Program Student Learning Outcomes

- Students will have basic knowledge and understanding of the content of modern geology. Specifically, they will be able to explain the nature of tectonic forces in the Earth's crust and their effects on most geological processes, understand and be able to explain geologic time and fossil record, and understand and be able to explain basic surficial processes and human interrelationships with Earth's surface.
- Students will acquire knowledge and demonstrate skills to collect and analyze Earth's minerals and rocks. Specifically, they will demonstrate the skills necessary to gather and interpret field and other types of geologic data, identify samples of basic mineral and rock material found on Earth's surface, understand and be able to explain the basic physical and chemical attributes of Earth's minerals and rocks, and explain how Earth's basic minerals and rocks form chemically and physically.
- Students will understand the philosophical, mathematical and physical science foundations of geology. Specifically, they will demonstrate a basic understanding of the physical science foundations of geology.

#### The following is required for all AA-T or AS-T degrees:

- Completion of minimum 60 semester or 90 quarter units of transferable degree applicable courses.
- Minimum overall grade point average (GPA) of at least 2.0 in all CSU transferable coursework.
- Minimum 18 semester or 27 quarter units in major or area of emphasis with a minimum grade of "C" (or "Pass") for each course in the major.
- Completion of the California State University General Education (CSU GE) Breadth pattern or the Intersegmental General Education Transfer Curriculum (IGETC) pattern. For more information, refer to the catalog section, "Certificate of Achievement (<http://catalog.swccd.edu/certificates-certifications-degrees-csuuc-requirements/certificates/certificate-achievement/>)" under Graduation, Certificates, and Degree Requirements.

Code	Title	Units
<b>Required Core</b>		
GEOL 100	PRINCIPLES OF GEOLOGY	3
GEOL 101	GENERAL GEOLOGY LABORATORY	1
GEOL 115	DINOSAURS AND THE STORY OF EARTH	3
GEOL 115L	DINOSAURS AND THE STORY OF EARTH LAB	1
CHEM 200	GENERAL CHEMISTRY I	5
CHEM 210	GENERAL CHEMISTRY II	5
MATH 250	ANALYTIC GEOMETRY AND CALCULUS I	5
MATH 251	ANALYTIC GEOMETRY AND CALCULUS II	4
<b>Total Units</b>		<b>27</b>

\* Students planning to transfer to a four-year college or university should complete courses specific to the transfer institution of choice. University requirements vary from institution to institution and are subject to change. Therefore, it is important to verify transfer major preparation and general education requirements through consultation with a counselor in either the Counseling Center or Career and Transfer Connections. See catalog Transfer Courses Information (<http://catalog.swccd.edu/student-success-support-program/student-services-and-college-services/other-services/transfer-courses/>) section for further information.