Geology (GEOL) Courses

1

GEOLOGY (GEOL) COURSES

GEOL 101 3 Units

Introduction to Physical Geology Lecture: 54 contact hours

Advisory: Eligibility for college level English and Mathematics based on the

SBVC Guided-Self Placement process.

Earth is an amazing place, and for millennia cultures and civilizations have attempted to explain the various topics that relate to our understanding of our blue planet. From the various minerals, rocks, and resources found on it that power our cellphones and televisions to the dramatic features, such as mountains, volcanoes, canyons etc. that shape our landscape. From the consequential natural disasters such as earthquakes that we in California and people around the world deal with on an annual basis to the disproportionate effects of global climate change. In this course we build a fundamental understanding of these topics (and many more) by emphasizing the overarching Theory of Plate Tectonics, the processes that created the continents and the ocean basins, and the internal and external processes that change the landscape and impact the planet in a variety of ways we seek to put ourselves in the context of our planet.

Associate Degree Applicable Transfers to both UC/CSU

C-ID: GEOL 100

GEOL 111 1 Unit

Introduction to Physical Geology Laboratory

Lab: 54 contact hours

Prerequisite/Corequisite: GEOL 101

This course is a hands-on introduction to the study of the Earth, with an emphasis on the materials that make up the Earth. Students will participate in one or more field trips. This course is recommended for students concurrently enrolled in GEOL 101 or who have successfully completed GEOL 101 within the last two years.

Associate Degree Applicable Transfers to both UC/CSU

C-ID: GEOL 100L

GEOL 112 4 Units

Historical Geology

Lecture: 54 contact hours

Lab: 54 contact hours

Advisory: GEOL 101 and GEOL 111 and eligibility for college level English and Mathematics based on the SBVC Guided-Self Placement process.

This course reviews the geologic history of the Earth. Specific topics include the planet's origin and chronological processes that produce major continental and oceanic features, plate tectonics, stratigraphy, interpretation of Earth history from rock and fossil records, and the evolutionary development of plant and animal life. Students should anticipate participating in one or more field trips.

Associate Degree Applicable Transfers to both UC/CSU

C-ID: GEOL 111

GEOL 122 3 Units
Environmental Geology
Lecture: 54 contact hours
Advisory: GEOL 101 or GEOG 110

This course introduces the relationships among geologic processes, natural resources, and the needs of society. Topics include natural hazards such as earthquakes, landslides, and mudflows; mineral and energy resources; and the particular problems associated with urbanization, resource use, and pollution. Students should anticipate participating in one

or more field trips.

Associate Degree Applicable

Transfers to both UC/CSU

C-ID: GEOL 130

GEOL 140 3 Units Earth Science

Lecture: 54 contact hours

An introduction to the essentials of Earth Science including the geosphere, atmosphere, hydrosphere, and solar system. This course focuses on the interactions between physical and chemical systems of the Earth such as the tectonic cycle, rock cycle, hydrologic cycle, weather, and climate.

Associate Degree Applicable Transfers to both UC/CSU

C-ID: GEOL 120 **GEOL 141 1 Unit**

Earth Science Laboratory
Lab: 54 contact hours

Prerequisite/Corequisite: GEOL 140

In this laboratory component of the GEOL 140 Earth Science lecture course, you will use hands-on, field-based, and in-class experiences to better understand and appreciate the geosphere, atmosphere, hydrosphere, and solar system. This course focuses on the physical and chemical systems of the Earth such as the tectonic cycle, rock cycle, hydrologic cycle, weather, and climate. This course is recommended for students concurrently enrolled in GEOL 140 or who have successfully completed the course within the last three years. Students should be prepared to participate in one or more off-campus field exercises.

Associate Degree Applicable Transfers to both UC/CSU

C-ID: GEOL 120L

GEOL 170 1 Unit

Geological History of the Great Basin Province

Lecture: 9 contact hours **Lab**: 27 contact hours

Advisory: GEOL 101 or GEOG 110 or GEOL 112 and eligibility for college level English and Mathematics based on the SBVC Guided-Self Placement process.

Students will discuss and observe the physical and historical geology of the Great Basin Province of the United States, with special emphasis on the geology of Death Valley National Park. Coursework will involve a series of lectures leading to a three to four day field trip through the Great Basin in and around Death Valley. Students must attend the field trip for the successful completion of the course. The field trips will emphasize the geological features and anthropological history of the Great Basin Province.

Associate Degree Applicable Transfers to CSU only **GEOL 222 1-3 Units**

Independent Study in Geology

DIR: 54 contact hours
Prerequisite: GEOL 101

Students with previous course work in Geology may work on assigned projects involving research and analysis of selected topics. This independent study is for students who are interested in furthering their knowledge of Geology. Prior to registration, a written contract must be prepared jointly by the instructor and the student.

Associate Degree Applicable Transfers to CSU only

GEOL 250 3 Units Geology of California Lecture: 54 contact hours

Advisory: GEOL 101 or GEOG 110 and eligibility for college level English and Mathematics based on the SBVC Guided-Self Placement process.

This course introduces students to the physical and historical geology of California, emphasizing the distinctive geologic features of each of California's twelve geomorphic provinces. Students should anticipate participating in one or more field trips.

Associate Degree Applicable Transfers to both UC/CSU

C-ID: GEOL 200

GEOL 251 3 Units
Geology of the National Parks and Monuments

Lecture: 54 contact hours

Advisory: GEOL 101 or GEOG 110 or GEOL 111 or GEOG 111 or GEOG 111H and eligibility for college level English and Mathematics based on the SBVC Guided-Self Placement process.

This course comprises a study of the geology of selected national parks, monuments, seashores, recreational areas, and other public sites of geologic interest within the United States and its territories. There is an emphasis on the geologic processes that formed these notable sites. Students should anticipate participating in one or more field trips.

Associate Degree Applicable Transfers to both UC/CSU

GEOL 260 3 Units

Introduction to Field Geology Lecture: 36 contact hours Lab: 54 contact hours

Prerequisite: GEOL 101 or GEOL 112 **Advisory**: GIS 130 or GEOG 130

This course emphasizes demonstration, discussion, and practice of field investigations of geologic environments. Activities include describing, mapping, and identifying geologic phenomena using traditional and cutting-edge field survey methods. As this is a hands-on course, students will spend time in the field.

Associate Degree Applicable Transfers to both UC/CSU GEOL 270 1 Unit

Geology of the Eastern Sierra Nevada

Lecture: 9 contact hours **Lab:** 27 contact hours

Advisory: GEOL 101 or GEOL 112 or GEOG 110 and eligibility for college level English and Mathematics based on the SBVC Guided-Self Placement process

This course provides a lecture discussion and field observation of the physical and historical geology of the Eastern Sierra Nevada Province. It includes a three to four day field trip along the boundary between the Sierra Nevada and Basin and Range Provinces. A three to four day field trip demonstrates volcanic, glacial, and other geologic or economic processes. This field trip is required for the successful completion of the course.

Associate Degree Applicable

Transfers to CSU only