

ESCI 144: FIELD GEOLOGY OF SOUTHERN CALIFORNIA

Citrus College Course Outline of Record

Heading	Value
Effective Term:	Fall 2023
Credits:	2
Total Contact Hours:	36
Lecture Hours :	36
Lab Hours:	0
Hours Arranged:	0
Outside of Class Hours:	72
Strongly Recommended:	ESCI 120 hybrid (in person lab).
District General Education:	B2. Natural Sciences - Physical Sciences
Transferable to CSU:	No
Transferable to UC:	No
Grading Method:	Standard Letter

Catalog Course Description

A field study of the geologic materials and processes in Southern California's deserts. Course also includes the study of regional minerals and rocks, volcanic processes, and tectonic features. Students will learn to recognize the signs of climate change as reflected in ecological and vegetative changes. Course includes a weekend trip to the region. A transportation/activities fee may be charged. 36 lecture hours.

Course Objectives

- Identify and evaluate the role of geologic processes in shaping desert landscapes.
- Identify tectonic features of the region.
- Identify sedimentary features associated with desert regions and identify and the processes that created them.
- Describe the geologic history of the region.
- Identify the causes of climate change within desert regions of Eastern California and Nevada.
- Use a topographic map to determine relative geologic relationships through use of a geologic compass

Major Course Content

1. Identification of Igneous Rocks, Metamorphic Rocks, and Minerals
2. Topographic and Geologic Maps used in conjunction with a geologic compass
3. Plate Tectonics and its effect on the southern Californian landscape
4. Climate change impacts and solutions
5. Extrusive and Intrusive Volcanic Processes
6. Erosional and Depositional Environments
7. Geomorphology of Arid Landscapes
8. Geologic History of Eastern California

Suggested Reading Other Than Required Textbook

Chapters pertaining to arid or extensional tectonic desert environments in any geology textbook within the college library.

Examples of Required Writing Assignments

Students will be required to keep a scientific and photographic journal of their experiences in southern California's deserts using proper geologic terminology. Students will also complete geologic essays and construct written geologic histories from geologic columns and maps.

Examples of Outside Assignments

Students are to write a scientific journal chronicling their study of southern California geomorphology and processes using proper geologic terms

Instruction Type(s)

Lecture