

# EARTH SCIENCE (ESCI)

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## ESCI 110

### Earth Science

**4 Units (AA/AS; Citrus B2; Citrus B3; CSU; UC; IGETC 5A; IGETC 5C; CSUGE B1; CSUGE B3)**

**54 lecture hours, 54 lab hours**

**Grade Mode: Standard Letter**

*Strongly recommended: ENGL 101.*

This course provides an introductory survey of the fundamental concepts of Earth and space science and the interrelationships among these disciplines. Emphasis will be placed upon the comparative study of the Earth and the other planets, their formation and evolution, Earth's atmosphere, hydrosphere, and lithosphere; the dynamics of each, and how they are interrelated.

## ESCI 119

### Physical Geology without Laboratory

**3 Units (AA/AS; Citrus B2; CSU; UC; IGETC 5A; CSUGE B1)**

**54 lecture hours**

**Grade Mode: Standard Letter**

*Strongly recommended: ENGL 101.*

This course investigates the dynamic nature of the Earth through the study of earth processes including: plate tectonics, earthquakes and the Earth's interior, mineral and rock systems, crustal deformation, weathering processes, glaciers, and deserts. Students may not receive credit for both ESCI 119 and ESCI 120.

## ESCI 120

### Physical Geology

**4 Units (AA/AS; Citrus B2; Citrus B3; CSU; UC; IGETC 5A; IGETC 5C; CSUGE B1; CSUGE B3)**

**54 lecture hours, 54 lab hours**

**Grade Mode: Standard Letter**

*Strongly recommended: ENGL 101.*

This course investigates the dynamic nature of the Earth through the study of earth processes including: plate tectonics, earthquakes and the Earth's interior, mineral and rock systems, crustal deformation, weathering processes, glaciers, and deserts. Students may not receive credit for both ESCI 119 and ESCI 120.

## ESCI 121

### Historical Geology

**4 Units (AA/AS; Citrus B2; Citrus B3; CSU; UC; IGETC 5A; IGETC 5C; CSUGE B1)**

**54 lecture hours, 54 lab hours**

**Grade Mode: Standard Letter**

*Prerequisite(s): ESCI 119 or ESCI 120 or ESCI 124 or ESCI 130.*

*Strongly recommended: ENGL 101.*

The geological events of Earth history from the origin of our planet to the present time. Includes a summary of the evolution of the plants and animals of the Earth and a study of the fossils of the various periods of geologic time. Field excursions will be arranged. A transportation fee will be charged.

## ESCI 122

### Earth History

**3 Units (AA/AS; Citrus B2; CSU; UC; IGETC 5A; CSUGE B1)**

**54 lecture hours**

**Grade Mode: Standard Letter**

*Strongly recommended: ENGL 101.*

This course covers geologic history of the earth as shown by the changing of land and sea and by the succession of fauna and flora. Stratigraphy and fossils used for interpreting the sequence of past geological events are studied.

## ESCI 124

### Natural Disasters

**3 Units (AA/AS; Citrus B2; CSU; UC; IGETC 5A; CSUGE B1)**

**54 lecture hours**

**Grade Mode: Standard Letter**

*Strongly recommended: ENGL 101.*

Application of geologic principles in the study of natural disasters. Topics include earthquakes, volcanism, mass wasting, climate change, floods, coastal processes, mass extinctions, and meteorite impacts.

## ESCI 130

### Physical Oceanography

**3 Units (AA/AS; Citrus B2; CSU; UC; IGETC 5A; CSUGE B1)**

**54 lecture hours**

**Grade Mode: Standard Letter**

*Strongly recommended: ENGL 101.*

A study of marine geology and bathymetry, physical processes within the marine environment, such as waves and currents, tides, sea-floor spreading, marine provinces, marine sediments, and environmental relationships.

## ESCI 140

### The Geology of Death Valley National Park

**2 Units (AA/AS; CSU)**

**36 lecture hours**

**Grade Mode: Pass/No Pass, Standard Letter**

*Strongly recommended: ENGL 101.*

A study of the geologic materials and processes in Eastern California with emphasis on Death Valley. The primary emphasis is on the unique geomorphology and tectonic history of this region. Course also includes the study of regional minerals and rocks, aeolian processes, and tectonic features. Includes a weekend trip to the region. A transportation/activities fee may be charged.

## ESCI 144

### Field Geology of Southern California

**2 Units (AA/AS)**

**36 lecture hours**

**Grade Mode: Standard Letter**

*Strongly recommended: ESCI 120 hybrid (in person lab).*

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.

**ESCI 180**

**Introduction to Geographic Information Systems**

**4 Units (AA/AS; CSU; UC)**

**36 lecture hours, 108 lab hours**

**Grade Mode: Pass/No Pass, Standard Letter**

*Strongly recommended: ENGL 101; basic computing skills such as the use of the Windows computer system or ITIS 099.*

An introductory GIS course that will teach the theory and usage of Geographic Information Systems in a number of fields including business, resource management, Earth Sciences, and urban planning. Recommended for anyone using spatial data in their profession.

**ESCI 698A**

**Cooperative Education**

**1 Unit (AA/AS)**

**60 lab hours arranged**

**Grade Mode: Pass/No Pass, Standard Letter**

*Prerequisite(s): The student must be simultaneously enrolled in a class that relates to the Cooperative Education class.*

A course designed to assist students in planning and accomplishing meaningful learning objectives related to Earth Science at their place of volunteer employment or training sites.

**ESCI 698B**

**Cooperative Education**

**2 Units (AA/AS)**

**120 lab hours arranged**

**Grade Mode: Pass/No Pass, Standard Letter**

*Prerequisite(s): The student must be simultaneously enrolled in a class that relates to the Cooperative Education class.*

A course designed to assist students in planning and accomplishing meaningful learning objectives related to Earth Science at their place of volunteer employment or training sites.

**ESCI 698C**

**Cooperative Education**

**3 Units (AA/AS)**

**180 lab hours arranged**

**Grade Mode: Pass/No Pass, Standard Letter**

*Prerequisite(s): The student must be simultaneously enrolled in a class that relates to the Cooperative Education class.*

A course designed to assist students in planning and accomplishing meaningful learning objectives related to Earth Science at their place of volunteer employment or training sites.

**ESCI 698D**

**Cooperative Education**

**4 Units (AA/AS)**

**240 lab hours arranged**

**Grade Mode: Pass/No Pass, Standard Letter**

*Prerequisite(s): The student must be simultaneously enrolled in a class that relates to the Cooperative Education class.*

A course designed to assist students in planning and accomplishing meaningful learning objectives related to Earth Science at their place of volunteer employment or training sites.

**ESCI 699A**

**Cooperative Education**

**1 Unit (AA/AS)**

**75 lab hours arranged**

**Grade Mode: Pass/No Pass, Standard Letter**

*Prerequisite(s): The student must be simultaneously enrolled in a class that relates to the Cooperative Education class.*

A course designed to assist students in planning and accomplishing meaningful learning objectives related to Earth Science at their place of paid employment or training sites.

**ESCI 699B**

**Cooperative Education**

**2 Units (AA/AS)**

**150 lab hours arranged**

**Grade Mode: Pass/No Pass, Standard Letter**

*Prerequisite(s): The student must be simultaneously enrolled in a class that relates to the Cooperative Education class.*

A course designed to assist students in planning and accomplishing meaningful learning objectives related to Earth Science at their place of paid employment or training sites.

**ESCI 699C**

**Cooperative Education**

**3 Units (AA/AS)**

**225 lab hours arranged**

**Grade Mode: Pass/No Pass, Standard Letter**

*Prerequisite(s): The student must be simultaneously enrolled in a class that relates to the Cooperative Education class.*

A course designed to assist students in planning and accomplishing meaningful learning objectives related to Earth Science at their place of paid employment or training sites.

**ESCI 699D**

**Cooperative Education**

**4 Units (AA/AS)**

**300 lab hours arranged**

**Grade Mode: Pass/No Pass, Standard Letter**

*Prerequisite(s): The student must be simultaneously enrolled in a class that relates to the Cooperative Education class.*

A course designed to assist students in planning and accomplishing meaningful learning objectives related to Earth Science at their place of paid employment or training sites.