

## **ESCI Courses (Earth Science)**

The first number is course level (1 = freshman, 2 = sophomore, 3 = junior, 4 = senior, 5 = graduate).

The middle two numbers are identifiers specific to the course

The last number is the number of credit hours

ESCI 1033 Elements of Astronomy

**A.C.T.S. Equivalent Course # PHSC 1204 when combined with ESCI 1041 Elements of Astronomy Laboratory**

3 credits: 3 hours lecture

A study of astronomy from the past to the present including examinations of the solar system, properties of stars, and characteristics of galaxies.

ESCI 1041 Elements of Astronomy Laboratory

1 credit: 2 hours laboratory

A laboratory course to supplement ESCI 1033.

ESCI 1051 Elements of Geology Laboratory

**A.C.T.S. Equivalent Course # GEOL 1114 when combined with ESCI 1063 Elements of Geology**

1 credit: 2 hours laboratory

Corequisite: ESCI 1063

Identification of minerals and rocks, introduction to maps, methodology of absolute and relative age dating. Introduction to structural geology.

ESCI 1063 Elements of Geology

**A.C.T.S. Equivalent Course # GEOL 1114 when combined with ESCI 1051 Elements of Geology Laboratory**

3 credits: 3 hours lecture

Corequisite: ENGL 1013

Materials of the Earth's crust and the processes and agents that affect them; plate tectonics, earthquakes, volcanoes, and Earth history.

ESCI 1073 Earth and Atmosphere

**A.C.T.S. Equivalent Course # PHSC 1104 when combined with ESCI 1081 Earth and Atmosphere Laboratory**

3 credits: 3 hours lecture

Corequisite: ESCI 1081

Survey of the nature of the Earth's hydrosphere in terms of composition, origin, and physical processes; weather, climate, oceans, streams, groundwater, and glaciers.

ESCI 1081 Earth and Atmosphere Laboratory

**A.C.T.S. Equivalent Course # PHSC 1104 when combined with ESCI 1083 Earth and Atmosphere**

1 credit: 2 hours laboratory

Corequisite: ESCI 1073

Exercises involving interpretation of oceanic data, methodology of collecting weather data, stream and groundwater flow problems.

ESCI 1123 Meteorology

3 credits: 3 hours lecture

Corequisite: ESCI 1131

Survey of the Earth's Atmosphere in terms of weather patterns and climate changes.

### ESCI 1131 Meteorology Lab

1 credit: 2 hours laboratory

Corequisite: ESCI 1123

Exercises involving interpretation of weather and climate data.

### ESCI 222V Field Geology

Variable credit

NOTE: May be repeated for a maximum of 3 hours credit.

Introduction to the methods of field investigation and interpretation of geological features. The purpose and scope of the course will vary from trip to trip.

### ESCI 3473 Earth Resources

3 credits: 3 hours lecture

Prerequisite: ESCI 1063

Origin, classification, and distribution of the Earth's economic minerals, rocks, water, and fossil fuels.

### ESCI 3493 Environmental Science

3 credits: 3 hours lecture

Prerequisite: three hours of biology or earth science

NOTE: Same as BIOL 3493

A survey of the environment to provide an understanding of and respect for the ecosystems upon which the human species is dependent. Fall offering in even-numbered years.

### ESCI 358V Natural History

Variable credit

Prerequisite: three hours biology or earth science

NOTE: May be taken for a maximum of 3 hours credit. Same as BIOL 358V, FOR 358V, and WLF 358V.

A field course in geology and biology of natural ecosystems, consisting of travel, study, and/or research in unique natural areas of North America.

### ESCI 3503 Advanced Astronomy

3 credits: 3 hours lecture

Prerequisite: ESCI 1033

Analysis, makeup, and operation of planetary systems; star formation and types; classes and variations of galaxies; operation of the universe.

### ESCI 4652 Special Topics

2 credits: 2 hours lecture

Selected topics from the areas of astronomy designed to be of particular interest and use to in-service teachers.

May be taken by regular students only with permission of the Vice Chancellor for Academic Affairs. May be repeated for a total of six hours credit.