

# Environmental Science Courses

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## Courses

### **ESCI 5101. Graduate Seminar.**

Graduate Seminar (1-0) Presentation and discussion of topics in environmental science and engineering by graduate students, faculty and visitors.

Prerequisite: Enrollment in the MS program in Environmental Science.

**Department:** Environmental Science

**1 Credit Hour**

**1 Total Contact Hour**

0 Lab Hours

1 Lecture Hour

0 Other Hours

### **ESCI 5307. Arid Lands.**

Scientific review of Earth's dry environments. Factors investigated include geography, climate, weather, water, landforms, geology, soils, plants, animals, and ecosystems drylands, desertification, and human occupation and utilization of desert and semidesert environments.

**Department:** Environmental Science

**3 Credit Hours**

**3 Total Contact Hours**

0 Lab Hours

3 Lecture Hours

0 Other Hours

### **ESCI 5308. Climate Science.**

A synthesis of Earth's climate system. Areas of emphasis include: (1) scientific foundations of the study of Earth's climate system, climate dynamics and climate change, (2) basic understandings of Earth's climate system as a part of the overall Earth system and Earth's place in the solar system, (3) geological and instrumental record of climate, (4) human impacts on the climate system, including human vulnerability and response to climate change, and (5) contextualization of Earth's current climate with that of its geological past.

**Department:** Environmental Science

**3 Credit Hours**

**3 Total Contact Hours**

0 Lab Hours

3 Lecture Hours

0 Other Hours

### **ESCI 5310. Interd Environ Problem Solving.**

Interdisciplinary Environmental Problem Solving Students with different backgrounds will work in teams to examine interdisciplinary environmental issues specific to the far west Texas border region and prepare a group report with recommendations, which consider scientific, political, economic, and social aspects.

**Department:** Environmental Science

**3 Credit Hours**

**3 Total Contact Hours**

0 Lab Hours

3 Lecture Hours

0 Other Hours

### **ESCI 5315. Topics in Environmental Sci..**

Topics in Environmental Science (3-0) Study of topics in fields such as environmental geology, environmental chemistry, environmental biology, environmental justice, environmental health, physics, hydrology and environmental law. May be repeated when topics vary. Prerequisites: Graduate standing and department approval.

**Department:** Environmental Science

**3 Credit Hours**

**3 Total Contact Hours**

0 Lab Hours

3 Lecture Hours

0 Other Hours

**ESCI 5320. Regional Water Sustainability.**

Regional Water Sustainability In this graduate-level course multiple projects are designed to understand and solve local and regional environmental problems that are water-related. Through hands-on experiences, field trips and guest lectures, students will be trained to collect data using state-of-art instruments and techniques, analyze their own data as well as larger, more complex datasets, and understand the importance of water resources in societal stability.

**Department:** Environmental Science

**3 Credit Hours**

**3 Total Contact Hours**

0 Lab Hours

3 Lecture Hours

0 Other Hours

**ESCI 5398. Thesis Research I.**

Thesis Research I (0-0-3) Initial work on the thesis.

**Department:** Environmental Science

**3 Credit Hours**

**3 Total Contact Hours**

0 Lab Hours

0 Lecture Hours

3 Other Hours

**ESCI 5399. Thesis Research II (0-0-3).**

Thesis Research II (0-0-3) Continuous enrollment required while work on thesis continues. Prerequisite: ESCI 5398.

**Department:** Environmental Science

**3 Credit Hours**

**3 Total Contact Hours**

0 Lab Hours

0 Lecture Hours

3 Other Hours

**Prerequisite(s):** (ESCI 5398 w/P or better)