



NR 28 - Environmental Management

Catalog Description

Transfer Status: CSU/UC

Unit(s): 3.00

Lecture: 34.00 Contact hours/68.00 Out of class hours/102.00 Total hours/2.00 Unit(s)

Lab: 51.00 Contact hours/0.00 Out of class hours/51.00 Total hours/1.00 Unit(s)

Total: 85.00 Contact hours/68.00 Out of class hours/153.00 Total hours/3.00 Unit(s)

Course Description: This course is an introduction to the conservation and management of natural resources. Students will learn about the diverse agencies that manage our resources along with their history and philosophies. The major natural resources including water, air, energy, forests, wildlife, agriculture, and soils will be covered and students will learn about the environmental policy and laws that govern use of these resources. An emphasis is placed on the practical components of Environmental Science as it relates to social and economic aspects of conservation.

Objectives

Upon successful completion of this course, the student should be able to:

1. Describe and apply the basic elements of the scientific method to problems in the field.
2. Distinguish among the various types of natural resources and how they are used.
3. Evaluate the effects of our human population upon the earth's resources.
4. Assess the various reasons for protecting and maintaining biodiversity.
5. Evaluate different management practices used to maintain forest ecosystems and wildlife resources.
6. Evaluate the various resource agencies and their management philosophies.
7. Assess the role of parks, national forests, and wilderness play in our society.
8. Distinguish among the various causes of soil erosion.
9. Evaluate and discuss the sources of air and water pollution along with some of the solutions to those problems.
10. Investigate how alternative energy sources can be used to meet future demand.
11. Evaluate environmental policies and their effectiveness in resources conservation.

Course Content

Topic Titles / Suggested Time Topic

Lecture

<u>Topics</u>	<u>Lec Hrs</u>
Environmental Interrelationships	2.00
Environmental Ethics	2.00
Environmental Risk	4.00
Kinds of Ecosystems and Communities	4.00
Energy and Civilization: Pattern of Consumption	2.00
Nuclear Energy	2.00
Biodiversity Issues	4.00
Land-Use Planning	4.00
Agricultural Methods and Pest Management	2.00
Air Quality Issues	4.00
Solid Waste Management and Disposal	2.00
Environmental Regulations: Hazardous Substances and Wastes	2.00

Total Hours: 34.00

Lab

<u>Topics</u>	<u>Lab Hrs</u>
Scientific Investigation and Study of Ecosystems	3.00
Environmental Interrelationships	3.00
Environmental Ethics	3.00
Environmental Risk	3.00
Kinds of Ecosystems and Communities	6.00
Energy and Civilization: Pattern of Consumption	3.00

<u>Topics</u>	<u>Lab Hrs</u>
Nuclear Energy	3.00
Biodiversity Issues	6.00
Land-Use Planning	6.00
Agricultural Methods and Pest Management	3.00
Air Quality Issues	6.00
Solid Waste Management and Disposal	3.00
Environmental Regulations: Hazardous Substances and Wastes	3.00
Total Hours: 51.00	

Methods of Instruction

- A. Collaborative Group Work
- B. Guest Speakers
- C. Homework: Students are required to complete two hours of outside-of-class homework for each hour of lecture
- D. Instructor Demonstrations
- E. Lecture
- F. Problem-Solving Sessions

Methods of Evaluation

- A. Exams/Tests
- B. Research Projects
- C. Oral Presentation
- D. Journal
- E. Lab Projects
- F. Written Assignments

Examples of Assignments

Reading Assignments

1. Read the chapter on Land-Use Issues from the textbook and bring in a local land-use issue facing us today. Be prepared to discuss these issues with the class and instructor.
2. Read the article, "Most Wars Occur In Earth's Richest Biological Regions," posted online and discuss the reading assignment with other students and the instructor.

Writing Assignments

1. Pick a recent and political hotbed environmental issue. Prepare a 3-page report on the subject and be sure to cite your sources.
2. Read a journal article about biodiversity and write a 1-page synopsis about the article.

Out-of-Class Assignments

1. Find a National Environmental Policy Act (NEPA) required environmental impact report and present a brief synopsis of its contents to the class.
2. Evaluate species diversity in and around where you live. Report your findings to the class.

Recommended Materials of Instruction

Enger, E.D., & Smith, B.F. (2025). Environmental Science: A Study of Interrelationships. *McGraw Hill, 2025 Release*. 9781266663208.
 Cunningham, P., et al. (2025). Principles of Environmental Science: Inquiry and Applications. *McGraw-Hill, 2025 Release*. 9781266680878.
 Cunningham, W. & Cunningham, M.A. (2025). Environmental Science: A Global Concern. *McGraw-Hill, 16th*. 9781264647842.

Other Learning Materials

Journal articles, environmental impact reports, and news articles provided by the instructor

Minimum Qualifications

Forestry/Natural Resources

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