

**ENVIRONMENT 101
INTRODUCTION TO THE ENVIRONMENT**

BULLETIN INFORMATION

ENVR 101 - Introduction to the Environment (3 credit hours)

Course Description:

Analysis of environmental issues and the role of science in their identification and resolution.

SAMPLE COURSE OVERVIEW

The goal of Introduction to the Environment is to investigate the interrelationships between human life and the environment from a scientific perspective, illustrating current and emerging problems and potential solutions while increasing students' awareness of their individual impacts on environmental systems.

ITEMIZED LEARNING OUTCOMES

Upon successful completion of Environment 101 students will be able to:

1. Describe the structure and function of significant environmental systems
2. Explain and apply scientific methods and terminology, including hypothesis formulation and testing, experimental design, and the method of multiple working hypotheses
3. Critically evaluate arguments regarding environmental issues
4. Demonstrate comprehension of the ways in which students' everyday actions affect the environment, and apply their understanding of environmental issues to personal choices

SAMPLE REQUIRED TEXTS/SUGGESTED READINGS/MATERIALS

1. Enger, E.D. and Smith, B.F. 2011. *Environmental Science: A Study of Interrelationships*. 13th edition. McGraw-Hill, Boston, MA.
2. I will also post lecture overviews that you can download and use to improve your note taking, studying, and comprehension of lecture material. It is critical to understand that these overviews are not a complete set of my lecture material or slides and not a substitute for attending class. When needed, I will also post additional course material and information. All online resources are available at: <http://blackboard.sc.edu>. For those of you taking the lab, there is a required lab manual that you need to download from Blackboard prior to the first lab.

SAMPLE ASSIGNMENTS AND/OR EXAMS

1. **Four Exams:** Exam questions are objective format (multiple choice, true/false); however, they test not only your knowledge of concepts and terminology, but also your ability to interpret and apply the material to new examples and related ideas.

2. **In Class Exercises:** These short assignments are designed to insure that you understand key terms and concepts as the class progresses while giving you the opportunity to apply course concepts to novel situations.

SAMPLE COURSE OUTLINE WITH TIMELINE OF TOPICS, READINGS/ASSIGNMENTS, EXAMS/PROJECTS

Section 1: Introduction to Environmental Valuation and Management

- Week 1** Introduction to Environmental Science- Ch. 1 (pp. 1-13)
- Week 2** Environmental Ethics and Attitudes- Ch. 2 (pp. 14-35)
Environmental Economics and Risk Analysis- Ch. 3 (pp. 36-60)
- Week 3** Waste Management and Disposal- Ch. 17 (pp. 396-410)
Toxic and Hazardous Wastes- Ch. 18 (pp. 411-429)
- Week 4** Environmental Justice, NIMBY and Decision Making
EXAM 1

Section 2: Biodiversity Concepts, Management and Preservation

- Week 5** Matter, Energy and the Environment- Ch. 4 (pp. 61-78)
Ecological Basics- Ch. 5 (pp. 79-96)
- Week 6** Terrestrial Ecosystems- Ch. 6 (pp. 108-128)
Aquatic Ecosystems- Ch. 6 (pp. 129-138)
- Week 7** Threats to Biodiversity- Ch. 11 (pp. 234-263)
Biodiversity Protection and Conservation- Ch. 11 (pp. 234-263)
- Week 8** EXAM 2

Section 3: Human Population Growth and Resource Availability

- Human Population Growth- Ch. 7 (pp. 139-169)
- Week 9** Energy and Civilization: Patterns of Consumption- Ch. 8 (pp. 170-184)
- Week 10** Energy Sources I: Non-Renewable Sources- Ch. 9 (pp. 185-196)
Energy Sources II: Renewable Sources- Ch. 9 (pp. 196-212)
- Week 11** Soil Resources: Background- Ch. 13 (pp. 288-310)
Agricultural Systems and Food Production- Ch. 14 (pp. 311-333)
- Week 12** Exam 3

Section 4: Environmental Degradation and Management

- Week 13** Air Quality: Pollutants- Ch. 16 (pp. 366-378)
Global Warming and Climate Change- Ch. 16 (pp. 378-391)
- Week 14** Environmental Effects of Climate Change
- Week 15** Water Resources I: Availability and Conservation- Ch. 15 (pp. 334-346)
Water Resources II: Pollution and Degradation- Ch. 15 (pp. 346-364)
- Week 16** Environmental Policy and Decision Making- Ch. 19 (pp. 427-449)
Course Wrap Up

Final Exam (Exam 4) according to University exam schedule -