ENVR 110 Introduction to Environmental Studies
Fall 2008

Location: HOSCI-202

Time: M, W: 10:10 – 11:20 AM

Instructor: Sonia Aziz

Office: Comenius 210

Office Hours: 3:30-5:00 M,W,F or by appointment

Phone: 610-625-7702

Email: aziz@moravian.edu

Adapted from course Syllabi for the Fall 2006 and 2007 ENVR 110 taught by Professors Diane Husic and Kerri Mullen.

Course Content:

Develop understanding the fundamental scientific concepts that underlie key environmental topics and environmental challenges. Evaluate the complexity and value of ecosystems, biodiversity and the relationship between humans and their environment. Understand the wide range of values, risk assessment, and social, economic, historical, and political factors that influence the development of public policy – especially as it pertains to environmental regulations, conservation, and stewardship. Understand the global nature of many environmental issues and appreciate the wide range of world views on the value and priority of the environment. Employ critical thinking to assess scientific and other forms of data, along with other information found in the literature for validity and relevance to environmental issues being considered.

Course Materials/Required Books:

Withgott and Brennan, Environment: The Science Behind the Stories, 3rd ed. Pearson Education Inc. (San Francisco, CA) Various readings (posted on Blackboard, handed out in class or placed on reserve)

Evaluation:

There will be two semester exams and a final. The final is selectively cumulative. All exams must be taken at the scheduled time. The class grade will be computed from grades on quizzes, participation in class discussions, and assignments. Moravian college policies regarding academic honesty will be enforced. Please read the **Academic Honesty Policy** that is included in the student handbook.

Assignments:

Students are required to read scheduled chapters before coming to class. Additional readings may be distributed in class, posted on blackboard or placed on reserve in the library. Assignments must be turned in on time for full credit. Regular attendance is expected. Because contribution to the classroom community is counted as part of the class grade, regular attendance is necessary to receive full credit in this category.

Weights:	**Test 1 (Monday September 22)**	**20 %**
	Test 2 (Monday November 3)	**20 %**
	Final (TBA)	**30%**
	Class Grade*	**30 %**

***** Based on attendance, participation (offering thoughtful answers on a regular basis), assignments, quizzes. Class participation and quizzes count as 5% of the class grade; assignments count for 25% of the class grade.

Test Grading Policy:

Test questions may be short answer (analytical, definitional), multiple choice or essay questions. Sometimes a student will disagree with a grade assigned to particular question. This is a legitimate concern and will be addressed in the following procedure. To have an answer reevaluated, the student must submit a *written* request for a reevaluation. This request should identify the question in dispute, provide a written explanation why the student feels the question was incorrectly evaluated, and propose a suggested remedy. It is within the instructor's purview to apply qualitative judgment in determining grades for an assignment or for a course.

Grading Scale: A (100 - 90), B (89 - 80), C (79 - 70), D (69 - 60), F (59 - 0).

Accommodation:

Should you have any individual concerns regarding disability please discuss this with me during the first week of class in person or via email. In addition, individuals from the counseling center will work with you to verify your need for accommodation and will help determine the environment in which you will have the opportunity to succeed in this course. To this end, students who wish to request accommodations in this class for a disability should contact Mr. Joe Kempfer, Assistant Director of Learning Services for Disability Support, 1307 Main Street (extension 1510). Accommodations cannot be provided until authorization is received from the office of Learning Services.

COURSE OUTLINE

Here is a tentative list of topics to be covered in class this semester. Depending on the background, interests and progress of the class we may cover more or less material or cover it in a different order:

I. Conceptual Foundations
- A. Introduction: Environmental Science (*Reading, Chapter 1*)
- B. Environmental Ethics and Economics: Values and Choices (*Reading: Chapter 2, Blackboard, Handouts*)
- C. Environmental Policy: Decision making and Problem Solving (*Reading: Chapter 3, Blackboard, Handouts*)
  - i. An Introduction to tools used in Environmental Policy
  - ii. Environmental Policy in the U.S.
  - iii. International Environmental Policy
- D. From Chemistry to Energy to Life *(Reading, Chapter 4)*
  - i. Chemistry and the Environment
  - ii. Energy Fundamentals
- E. Evolution, Biodiversity and Population Ecology *(Reading, Chapter 5)*
  - i. Levels of Ecological Organization
  - ii. Population Ecology
  - iii. Conservation of Biodiversity
- F. Species Interactions and Community Ecology *(Reading, Chapter 6)*
  - i. Species Interactions
- G. Environmental Systems and Ecosystem Ecology *(Reading, Chapter 7)*
  - i. Earth's Environmental Systems
  - ii. Ecosystems

II. Environmental Issues and the Search for Solutions
- A. Human Population *(Reading, Chapter 8)*
  - i. Demography
  - ii. Population and Society
- B. Soil, Agriculture *(Reading, Chapter 9)*
  - i. Soil as Foundation for Agriculture
  - ii. Soil Degradation and Conservation
- C. Biotechnology and the Future of Food *(Reading Chapter 10)*
  - i. The Race to Feed the World
  - ii. Preserving Crop Diversity
  - iii. Sustainable Agriculture
- D. Biodiversity and Conservation Biology *(Reading Chapter 11)*
  - i. Biodiversity Loss and Species Extinction
  - ii. Benefits of Biodiversity and Conservation Biology
- E. Resource Management, Land Use *(Reading, Chapter 12 and 13)*
  - i. Resource Management.
  - ii. Agricultural Land Use
  - iii. Urbanization and Creating Liveable Cities
- F. Environmental Health and Toxicology *(Reading Chapter 14)*
  - i. Toxic Agents in the Environment
  - ii. Risk Assessment and Risk Management, Policy Approaches
- G. Water Quality *(Reading Chapter 15, 16)*
  - i. Freshwater Resources, Human Impact and Conservation
  - ii. Marine and Coastal Systems, Human Impacts and Conservation
- H. Air Quality *(Reading Chapter17, 18)*

    i. Atmospheric Science and Air Pollution
    ii. Global Climate Change

I. Energy *(Reading Chapter 19, 20)*
    i. Fossil Fuels, Impacts
    ii. Conventional and New Renewable Energy Alternatives

J. Sustainability *(Reading Chapter 23)*
    i. Sustainable Development
    ii. Strategies for Sustainability