I. **Catalog Description**

EC 435  Seminar in Environmental Economics (4)

An examination of the relationship between environmental problems and economic institutions. The theory of externalities and market failure are studied with application to air, water and hazardous waste management topics. 4 seminars. Prerequisites: EC 201 or EC 202.

II. **Required Background or Experience**

EC 201 or EC 202.

III. **Expected Outcomes**

Students in EC 435 will:

a) characterize the past and present state of environment wellbeing with respect to air, water and waste management,

b) identify and apply basic microeconomic theories to the study of environmental issues,

c) analyze environmental issues from an economic perspective in order to ascertain solutions to environmental problems,

d) extend analysis of environmental issues to include other relevant perspectives, ie. ecology, ethics, planning,

e) summarize and evaluate the implications and contributions of policy alternatives, business and industry initiatives, and technologies pertinent to managing environmental problems,

f) identify successful national and international environmental cases studies government and industry, and

f) compare and contrast the premises and recommendations of environmental economics and ecological economics.
IV. Text and Readings

Texts:


Readings:


Gore, A. An Inconvenient Truth (Emmanus, PA: Rodale, 2006).


Gowdy, J. and S. O'Hara Economic Theory for Environmentalists (Delray Beach, FL: St. Lucie Press, 1995).


Kahn, J. R. *The Economic Approach to Environmental and Natural Resources* (Mason, OH: South-Western, 2005).


Speth, J. G.  The Bridge at the Edge of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability  (New Haven, CN: Yale University Press, 2008).


V.  Minimum Student Materials

Textbooks, notebooks, and access to library materials and personal computers.

Seminar in Environmental Economics
VI. **Minimum College Facilities**

Classroom suitable for seminar discussions and presentations equipped with computer audio-visual access, i.e. "smart" classroom.

VII. **Course Outline**

A. **Overview of Environmental Economics**
   1. Political, Economic, and Ecological Paradigms
   2. Framework for Analyzing Environmental Problems
   3. Private Property vs Common Property Rights
   4. Theory of Externalities
   5. Theory of Market Failure

B. **The Economics of Pollution Abatement**
   1. Command-and-Control Policies
   2. Emission vs Ambient Pollution Control Strategies
   3. Tradeable Permit Markets
   4. Market Incentive Pollution Policies

C. **Air Quality Management**
   1. Characteristics and Definitions of the Problem
   2. Historical Review of Command-and-Control Policies
   3. Efficiency and Cost-Effectiveness of Current Policies
   4. New Strategies for Pollution Abatement
   5. Regional and Global Concerns
   6. Stationary Sources

**Seminar in Environmental Economics**
7. Mobile Sources

D. Water Quality Management

1. Characteristics and Definitions of the Problem
2. Historical Review of Command-and-Control Policies
3. Efficiency and Cost-Effectiveness of Current Policies
4. New Strategies For Pollution Abatement

E. Solid and Hazardous Waste Management

1. Characteristics and Definitions of the Problem
2. Historical Review of Command-and-Control Policies
3. Efficiency and Cost-Effectiveness of Current Policies
4. New Strategies for Solid and Hazardous Waste Management

F. Distributional Issues Pertaining to Pollution Control Policies

1. Income and Employment Effects
2. Inter- and Intragenerational Impacts
3. Local vs Regional vs Global Impacts

G. New Paradigms in Environmental Economics

1. Sustainable Practices
2. Ecological Economics
3. Comparison of Command-and-Control Policies and New Policy Directions

VIII. Instructional Methods

There are four methods of instruction. Students:

Seminar in Environmental Economics
a) participate in instructor-led seminar discussions pertaining to lecture and required reading materials,
b) write statements of purpose and annotated bibliographies for their paper topics,
c) prepare written and oral presentations of a specific environmental economics issue, and
d) complete written examinations on required course materials.

IX. Evaluation of Outcomes

There are four methods of evaluations. Students will:

a) be evaluated based on oral contributions in the seminar,
b) prepare and present to the class a summary of their term paper of 10 - 15 pages on a specific environmental issue,
c) submit weekly written analysis of at least two pages on environmental reading material pertaining to their paper topics, and
d) write two essay/problem solving written examinations.