I. Catalog Description

EC 530 Advanced Seminar in Environmental Economics (4)


II. Required Background or Experience

EC 401 and EC 406. Unconditional standing required.

III. Expected Outcomes

Students in EC 530 will:

a) develop in-depth comprehension of the economic theory and policy alternatives pertinent to environmental issues,

b) review methodologies and empirical assessments of environmental effects for the U.S. and global environments,

c) compare and contrast U.S. and international pollution control policies, and

d) critically discuss future recommendations for environmental improvement in the air, water and waste management areas.

IV. Text and Readings

Texts:


Readings:


References:

Agricultural Economics
Agricultural Economics Research
American Economic Review
American Journal of Agricultural Economics
Econometrica
Economic Inquiry
Journal of Agricultural Economics
Journal of Economic Issues
Journal of Economic Literature
Journal of Environmental Economics and Management
Journal of Farm Economics
Journal of Law and Economics
Journal of Regional Science
Journal of Urban Economics
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Land Economics
Regional and Urban Economics
Regional Science and Urban Economics

V. Minimum Student Materials

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

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. Theory of Environmental Policy
   1. Theory of External Cost and Market Failure
   2. The Optimal Level of Pollution
   3. Market Achievement of the Optimal Level of Pollution
   4. Standards, Taxes, Subsidies, Permits, and the Optimal Level of Pollution
   5. Evaluation of Pollution Control Policies

B. Measuring Environmental Effects: Selected Methods and Case Studies
   1. Meaning and Usage of Environmental Valuation
   2. Direct and Indirect Damage Assessment Methodologies
   3. Benefit-Cost Analysis
   4. Cost-Effectiveness Approach
   5. Impact Report Preparation and Analysis
   6. Industrial Process Models and Regional-Residuals Management Models
   7. Input-Output Models and National Economic Models

C. Measuring Environmental Effects: Some Extensions
1. Preservation, Bequest, Option and Existence Valuations
2. Willingness to Pay vs Willingness to Accept Methodologies
3. Hedonic Price, Contingent Valuation, and Travel Cost Techniques
4. Distributional and Macroeconomic Aspects of Environmental Policy
5. Ethics and the Environment

D. International Pollution Control Policies

1. Mixed Economy Pollution Management Experiences
2. Centrally-Planned Economy Pollution Control Reports
3. LDCs and the Environment
4. Global Pollution Policy Efforts

E. New Directions for Environmental Management

1. Multiple-Use Planning
2. Sustainable Systems
3. Ecological Economics

VIII. Instructional Methods

There are four methods of instruction. Students:

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.