

Introductory Environmental and Health Economics

ECON/ENVR/SOSC 2310

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Course Description

- Introduction to the key concepts and findings in environmental and health economics
- Understanding of issues related to environment and health from an economist's point of view
- Foster economic intuition to understand social problems



Who should take this course?

- Have some basic knowledge of math, economics, and statistics.
- Want to learn how economics can be used to understand issues related to environment and health, and more generally the society.
- Would like to foster critical thinking on controversial issues.



Who shouldn't take this course

- “The professor seems nice and may give good scores.”
- “I dislike math and statistics, and I feel very uncomfortable in solving mathematical problems.”
- “I want to do multiple-choice questions in exams.”
- “I want to take it to fulfill the graduation requirements as it's a common core course.”
- Those who take ENVR 3410 should not enroll this course.



Textbooks and Readings

- No required textbook
- Readings:
 - Materials posted in CANVAS
 - “The Economics of the Environment”, by Peter Beck and Gloria Helmand, Pearson Press
 - “Microeconomics”, by Jeffrey Perloff, Pearson Press



Assignments and Grading

- 4 problem sets
 - May work together, write answers independently
- 1 News Article Analysis or Film Review
 - Discuss a newspaper article that relates to environmental or health issues using concepts or theories discussed in this course
- Problem sets (20%), news article analysis(20%), participation (10%), the midterm (20%), and the final exam grade (30%).



Q&A

- Questions about the logistics?



Course Outline (See Handout)

- **Week 1:**
- Overview
- Principles of Economics
- **Week 2:**
- Supply, Demand and Market Equilibrium
- Comparative Statics
- **Week 4:**
- Consumer Surplus and Producer Surplus
- Welfare Analysis



Course Outline (See Handout)

- **Week 5:**
- Social Optimum and Economic Efficiency
- Externalities
- **Week 6:**
- Coase Theorem and Discussions
- **Week 7:**
- Common Resources
- Public Goods
- **Week 8:**
- Political Economy of Public Goods Provision and Discussions*
- Midterm



Course Outline (See Handout)

- **Week 9:**
- Valuing the Environment: Revealed Preference and Stated Preference
- **Week 10:**
- VSL
- Benefit and Cost Analysis
- **Week 11:**
- Pollution and Health
- Documentary Film



Course Outline (See Handout)

- **Week 12:**
- Asymmetry Information, Moral Hazard, and Adverse Selection
- Health Care and Insurance
- **Week 13:**
- Environmental Regulations: Market-Based vs. Command and Control
- Second Best
- **Week 15:**
- Climate Change and the Future*
- Final Review



Get to Know Your Neighbors

4-5 per group



What kind of exams do you prefer?

- Exam Poll:
 - Open-book for both Midterm and Final
 - Closed-book for both Midterm and Final
 - Exams with a cheat-sheet



Discussion 1

- Suppose you serve as a government consultant, and the government wants to know **how much does the Victoria Harbor worth.**
- How will you estimate its value?



Discussion 2

- How much do you think a **life** worth? How will you calculate the (statistical) value to life?
- Do you think the economic value of a life is the same for everyone?



Discussion 3

- “Pollution causes health problems, so the goal of environmental economics is to reduce pollution to such a level that it does not harm people.”
- Is the above statement correct?



Discussion 4

- What would happen if the government allows free-trade of live organs? Do you think it will improve social welfare or not?
- Why cigarette selling is legal but drug selling is illegal? Do you support drug legalization?



Discussion 5

- The government wants to initiate a project that aims to improve public health.
 - There are two options:
 - Subsidize more hospitals so that more poor people can afford medical care when they are sick.
 - Increase sport facilities and encourage people to do more exercise.
 - Total spending is fixed, how should the government decide which one is better?



Discussion 6

Describe who will benefit and who will bear the costs from the following environmental protections:

- Reducing water pollution from agricultural production.
- Protecting endangered species whose habitat is affected by human settlements.
- Harvesting fish from a lake so much that the fish population might die out.
- Using up the world's supply of petroleum.

