

ECON 8320
Environmental and Natural Resource Economics, Fall 2004
T 4:30 – 7:00 pm; 300 Classroom South

Professor: Dr. Paul J. Ferraro
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Office Hours: 12:45 pm – 1:45 pm Tuesday or by appointment

Course Prerequisites:
Economics 2106 (Introduction to Microeconomics)

Required Text:

Introduction to Environmental Economics by N. Hanley, J. Shogren and B. White. 2001. Oxford University Press. ISBN 0-19-877595-4 (It's a paperback)

We will also have other readings. Some will be available via the Pullen Library electronic journals portal (<http://wwwlib.gsu.edu/ejournals/>). Articles that are not available via Pullen will be posted on WebCT or given to students in class.

Course Description:

This course provides a survey of the fundamental concepts underlying economic approaches to environmental policy, illustrates applications of these concepts in the real world, and offers students the opportunity to apply their new knowledge toward understanding a current environmental problem. The main emphasis of the course is like any other course: to encourage students to think critically, to speak and write simply and clearly, to own and use a body of facts and ideas that are widely known, to detect errors and fallacies, and to resolve intellectual problems.

We will spend the most time covering concepts that have applications beyond the realm of environmental policy. My general philosophy is that “less is more.” Rather than a tour-de-force through the entire environmental economics and policy literature, we will focus on understanding a short list of the core concepts that do most of the heavy lifting in environmental economics. Most of us learn best by example and repetition. We absorb ideas more quickly and retain them longer when the material is concrete rather than abstract. One clear explanation is often sufficient to enable a bright student to grasp a complex concept. But there is a deep difference between merely understanding a concept-- in the sense of being able to answer a test question about it the next day-- and really knowing it. Even the very brightest students never fully internalize a concept unless they use it repeatedly.

Grading:

I will grade you based on your performance on homework problems, one exam, one in-class presentation of a journal article, and a short term paper. Please remember that all university regulations, deadlines, and policies must be observed (including Academic Honesty policy).

Homework Problems and Article Summaries (15% of grade)

The homework problem sets are designed to bridge the gap between listening to and reading the material and actually applying the material. They are also designed to help you prepare for the mid-term exam. Students can discuss homework sets among each other, but each student must hand in his or her own work. No late homework or excuses will be accepted. You can miss 1 homework assignment and the weight for that assignment will be distributed over the remaining assignments. Any missed assignments beyond 1 will be assigned a score of zero.

On the days that students present journal articles in class, you will be required to read the article they are presenting and hand-in a one-page typed summary of the article. More details on these summaries will be offered in a separate handout. No late summaries will be accepted.

Mid-term Exam (35% of grade)

There will be one exam on **12 October, 2004**. THERE ARE NO MAKE-UP EXAMS (**NO EXCEPTIONS MADE, INCLUDING MEDICAL EXCUSES, DEATH IN THE FAMILY, ETC.**). In the event that you do not take the mid-term exam, but wish to continue taking the course, the weight assigned to this exam will be placed on your final term paper submission. Please recognize that it is NOT advisable that you deliberately miss the mid-term exam; such a strategy is extremely risky. Many students tend to perform better on the exam than they do on the paper.

No computers, cell phones or PDAs may be used on exams. Only calculators provided by the professor are allowed during the exam (everyone who wants one will receive one).

Term Paper (35% of grade)

One of the best ways to learn a subject is to write about it. You will receive more details on this assignment in a separate handout. You must submit a draft of your paper on or before **26 October** (5% of your final grade). The final version of the paper is due on or before **7 December** (30% of your final grade).

Journal Article Presentation (15% of grade)

The purpose of the article presentation review is two-fold: (1) to offer you the opportunity to apply your economic knowledge to evaluating an original piece of research; and (2) to offer you the opportunity to practice presenting economic analysis orally. You will receive more details on this assignment in a separate handout.

Other minor assignments may be offered. Some extra credit opportunities will be offered in and out of the classroom. More information on these opportunities will be given in class.

Your Grade

Grading is the inevitable end result of any class. I do not "curve" grades into a bell-shaped distribution. The following grading scale will be employed:

A	90% - 100%+
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	0 - 59%

Your grade will be determined by calculating the percentage of the possible points (500) that you earned during the semester.

Remember to keep in mind these policies:

- If you will need extra time on the exam, or have special needs in the classroom, please contact me **with the first two weeks of class so that we can work out a way to accommodate your needs.**
- Your final grade is determined using the weighting system described above. I do not make any exceptions to this grading policy.
- I try to grade all assignments fairly and accurately, but sometimes mistakes (or disagreements) occur. If you do not agree with the points that I have awarded you for a question, do not bring it to me in person. I would like for you to write on a separate sheet of paper the reason you feel that I should award you more points, then staple this paper to the exam and return it to me. I am much more likely to understand your complaint if I can take the time to look at it outside of class. When you submit your assignment the entire assignment will be re-graded.
- Disruptive behavior in the classroom robs other students of the education for which they are paying and will not be tolerated. **Please turn off all cell phones, pagers and portable stereos when you come to class.** Also, I do not permit students to type on computers during class unless you have a medical reason for doing so. If you must arrive late, please come in quietly and take the nearest seat. You may pick up any materials at the end of class.
- All class material that will be posted on WebCT will be available 24 hours before class. No hard copies will be passed out in class for this material. For last-minute changes or corrections, I will communicate to students via e-mail and postings on WebCT. You must ensure that I have your correct e-mail address.
- Please remember that all university regulations, deadlines, and policies must be observed. Students are responsible for the information contained in the Academic Honesty policy.

ATTENDANCE: Effective Fall 2001, all instructors must, on a date after the mid-point of the course (to be set by the Provost),

1. Give a WF to all those students who are on their rolls, but no longer taking the class and
2. Report the last day the student attended or turned in an assignment

Students who are on financial aid should pay particular attention to this rule as your attendance record may affect your aid package. I will assess your whether or not you are “still taking the class” based on three aspects of your participation: (1) Every class, I will randomly take attendance of about a dozen names on the roll (for every class, you have an equal probability of your name being called); (2) I will take full attendance at the exam; and (3) I will record who submits homework assignments. Missing a few classes will not affect your status unless you also fail to hand in homework assignments and fail to attend the exam, so please do not bother telling me why you missed, or are going to miss, a class.

Preliminary Course Outline (the components and order of this outline may be modified as the instructor sees fit)

Lecture #1. Review of Microeconomics

Lecture #2. Externalities and Market-based Solutions

Lecture #3: Public Goods and Property Rights

Lecture #4: Valuation

Lecture #5: Cost-benefit Analysis and Discounting

Lecture #6: Strategic Interaction and Game Theory

Lecture #7: Environmental Risk

Lecture #8: Growth and Sustainable Development

Lecture #9: Trade and the Environment

Lecture #10: Renewable and Non-renewable Resources

Lecture #11: TBA

The lectures are meant to complement the textbook and other readings. If you are not required to read the entire chapter or reading, I will announce it in class. Otherwise, assume you are required to read it. If you are absent, lecture notes can be obtained from your classmates. I do not provide lecture notes to students.

NOTE: The course syllabus provides a general plan for the course; deviations may be necessary.

Learning Objectives for ECON8320

1. The student should be able to understand and apply the basic theory from the prerequisite class in microeconomics: see Learning Objectives for ECON2106.
2. The student should be able to define present value and calculate this value for a given economic decision.
3. The student should be able to define the basic concepts of strategic interaction (e.g., elements of a game, dominant strategies, equilibrium outcomes) and apply them in a given economic context.
4. The student should be able to differentiate private and public goods, calculate the social and private values from a public good, and identify opportunities for free-riding.
5. The student should be able to define an externality, identify one in a given context and evaluate the difference between the privately and socially optimal outcomes in the context.
6. The student should be able to explain the role that property rights play in determining environmental outcomes.
6. The student should be able to define and apply the principles of Cost-Benefit Analysis.
7. The student should be able to list and explain at least four methods for determining values for non-market goods and services, as well as identify at least one disadvantage and one advantage of each method.
8. The student should be able to define what economists mean by risk and uncertainty/ambiguity, expected utility, and value of risk reduction and be able to derive costs and benefits of changes in risk.
9. The student should be able to explain how economists use markets to solve environmental problems. In particular, the student should be able to explain, through the lens of economic theory, how regulations, environmental taxes, and marketable permits function.
10. The student, when faced with a specific environmental problem, should be able to identify key attributes of the problem that are amenable to study using economic methods and concepts.

Syllabus Agreement

I, the undersigned, certify that I have read and fully understand the terms of the Course Syllabus and that I unconditionally agree to abide by the terms of the Syllabus for the Course.

Course Number: **ECON8320**

Date: _____

Your Name (Print legibly): _____

Signature: _____

Please sign, date and give this form to your professor by 31 August 2004. You will not be allowed to take any exams if you have not dated, signed and submitted this form to the professor.