ECON 4220
Environmental Economics & Policy, Fall 2011
W 4:30 – 7:00 pm; 227 General Classroom Building

Professor: Dr. Paul J. Ferraro
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ULearn: After the first week, look to Ulearn for lecture handouts (24 hours in advance of class), reading assignments, homework due dates, and other course relevant information.

Office Hours: 12:15 pm – 1:15 pm Wednesday or by appointment

Course Prerequisites:
Economics 2106 (Introduction to Microeconomics)

Required Text:

We will also have other readings. Some will be available via the Pullen Library electronic Journal Locator (go to GSU Library website). Articles that are not available via Pullen will be posted on ULearn 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, two exams, and a term paper project. Please remember that all university regulations, deadlines, and policies must be observed (including Academic Honesty policy).

Homework Problems (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 exams. 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 one homework assignment and the weight for that assignment will be distributed over the remaining assignments. Any missed assignments beyond one will be assigned a score of zero.

Exams (50% of grade)

There will be two exams: **5 October and 2 November.** THERE ARE NO MAKE-UP EXAMS. In the event that you do not take the first exam, the weight assigned to this exam will be placed on our second exam. In the event that you do not take the second exam, 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 any exam; such a strategy is extremely risky. Many students tend to perform better on the exams than they do on the paper.

**No computers, programmable calculators, cell phones or PDAs may be used on exams. Nothing that permits programmable text (so if you believe you need a calculator, bring a cheap one that does math operations only – no ability to store text).**

Topic Analysis (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 but the main features of this assignment are draft paper, presentation, peer review and final paper. You must submit a draft paper on or before **26 October** (5% of your final grade). In one of the last three classes, you will present the main findings from your paper in class and write a brief review of three other students’ oral presentations (5% of your final grade). The final version of the paper is due on or before **30 November** (25% of your final grade).

Extra credit opportunities will be offered both 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:

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<thead>
<tr>
<th>Grade</th>
<th>Percent Range</th>
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<tbody>
<tr>
<td>A</td>
<td>93% - 100%+</td>
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<tr>
<td>A-</td>
<td>90-92%</td>
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<tr>
<td>B+</td>
<td>87-89%</td>
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<tr>
<td>B</td>
<td>83% - 86%</td>
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<tr>
<td>B-</td>
<td>80% - 82%</td>
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<tr>
<td>C+</td>
<td>77% - 79%</td>
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<tr>
<td>C</td>
<td>73% - 76%</td>
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<tr>
<td>C-</td>
<td>70% - 72%</td>
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<tr>
<td>D</td>
<td>60% - 69%</td>
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<tr>
<td>F</td>
<td>0 - 59%</td>
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Your grade will be determined by calculating the percentage of the possible points (500) that you earned during the semester (e.g., each exam is worth 125 points, or 25% of your grade).

Remember to keep in mind these policies:

- No late homework sets will be accepted under any circumstances, but I will redistribute the weight of one missed homework to the remaining homework sets.
- If you miss the first exam, then the weight of the exam will be redistributed to your second exam. If you miss the second exam, the weight of the exam will be redistributed to your final paper submission. **THERE WILL BE NO MAKE-UP EXAMS. NO EXCEPTIONS MADE (INCLUDING MEDICAL EXCUSES, DEATH IN THE FAMILY, ETC.)**
- 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. Any requests for extra work (other than that available to all students during the semester), or for incompletes (except under university-approved conditions such as serious medical illness) will be denied.
- 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 an assignment, 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. It is in your interest to handle your grading questions in this way. 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, I will re-grade the entire assignment.
- Disruptive behavior in the classroom robs other students of the education for which they are paying and will not be tolerated. Talking to other students during lectures is not permitted. **Please turn off all cell phone ringers and music players when you come to class.** I reserve the right to deduct points off of your grade if you insist on being disruptive in class. Also, I do not permit students to type on computers during class unless you have a medical reason or the keyboard is silent (no annoying clicking that will bother your neighbors). 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 ULearn will be available 24 hours before class. No paper copies of this material will be passed out in class. For last-minute changes or
corrections, I will communicate to students via e-mail and postings on ULearn. I will use your e-mail address listed in GoSolar so please check it or have it forwarded to your most frequently used 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 first 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 ECON4220

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: **ECON4220**

Date: ________________________________

Your Name (Print legibly): __________________

Signature: ______________________________

**Please sign, date and give this form to your professor by 31 August 2011.** You will **not** be allowed to take any exams if you have not dated, signed and submitted this form to the professor.