Case Western Reserve University
Department of Economics

Economics 368/468
Environmental Economics

Contact Information

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Lecture Logistics

Mon. and Wed. 12:45 – 2PM
PBL Room 03

Office Hours

Weds. 4:45-5:45 PM
Thurs. 3-4 PM

Course Description

Economic models and reasoning provide a valuable lens through which to view many of the most intractable and perplexing environmental problems. The objective of this class is to apply the tools of a typical introductory or intermediate microeconomics course to topics involving the natural environment. That is, we will view environmental topics from the perspective of an economist. Topics that will be covered in this class include:

- Market failure in the case of externalities (e.g. pollution) and public goods provision (e.g. parks)
- Management of renewable resources (e.g. Lake Erie) and non-renewable resources (e.g. oil)
- Cost-effective pollution control
- How to measure the value of the environment
- Individual and company decision-making in response to regulations and taxes
- Energy use and global climate change

Pre-requisites

Economics 102- Principles of Microeconomics (or MBA equivalent) is officially a pre-requisite for this course. That said, many students have taken the class without any previous economics (via a waiver) and have done very well. The first two weeks of the course will review material from Econ 102. We will use calculus in this course at a level equivalent to 1st semester calculus.

Math is not the focus of the course, but will be used throughout. You should be able to take simple partial derivatives (of course, you will get practice doing this on the problem sets).

Email Policy

I will do my best to respond to all emails within 24 hours. Please don't send the same email 2x unless it has been more than one day. Please put: "Econ 368" in the subject line. Keep in mind that typing out a detailed response to a problem set (or lecture) question can take a long time and is generally difficult to read over email anyway. Email is best for logistical questions.

Grading

Test 1 (Units 1 & 2):	20%
Test 2 (Units 3 & 4):	20%
Quiz 1:	7.5%
Quiz 2:	7.5%
Testing subtotal:	55%
Problem Sets:	25%
Electricity Game:	5%
Climate Change Presentation:	5%
Op Ed Letter:	5%
Class Participation:	5%

Tests

The 2 tests will be done in class and will cover only the units of the course specified for each test. You are allowed 1 sheet of paper with notes for each test. If you miss the day of the test you will receive a zero for that test. The only exceptions are an illness or a death in the family (in both cases you will need documentation).

Please be sure to talk to me before/after class, or during office hours if you have a disability that may require additional testing accommodations. Don't wait until the day of the exam. We will be sure to arrange a suitable accommodation.

Test re-grading: If I have miscounted points on a test please notify me immediately and I will fix the grade. If you think that I have incorrectly scored an answer, submit a complaint in writing to me indicating the question and your specific concern. I will re-grade the entire test. You should keep in mind that this might decrease your final grade.

Quizzes

There are 2 quizzes. One quiz covering the assigned reading from *The Climate Casino* and one quiz covering the assigned reading from *Climate Shock*. Each quiz will be in class and last 20-30 minutes. You are allowed 1 sheet of paper with notes for each quiz. If you miss the day of the quiz you will receive a zero for that quiz. The only exceptions are an illness or a death in the family (in both cases you will need documentation).

Please be sure to talk to me before/after class, or during office hours if you have a disability that may require additional testing accommodations. Don't wait until the day of the quiz. We will be sure to arrange a suitable accommodation.

Problem Sets

The problem sets are designed to prepare you for the tests. The problem sets will cover material covered in lecture and discussion. Problem sets will be collected at the start of class on the day which they are due. I will not accept late problem sets, nor will I accept electronically submitted problem sets. If you know in advance that you must miss a class the day a problem set is due then please drop off the problem set at my office before the scheduled class time, or have a classmate turn in the problem set for you.

There will be (approximately) 7 problem sets, but you will be able to drop your lowest scoring problem set. The same testing re-grade policy applies to problem sets.

You are welcomed and encouraged to work in small groups (e.g. 2-4 people) when completing the problem sets. However, each member of the group must turn in their own copy of the problem set with the answers written in their own words. If you work in a group you must also cite your other group members by listing their names under your own ("group members: …").

Important note: If you do not cite group members then any similarities between your answers and another student's answers will be considered cheating and disciplinary action will be taken according to CWRU Academic Integrity Standards.

Electricity Game

During the 2nd half of the semester there will be a group-based competition. Each group will be the owner of a portfolio of power plants that generate electricity. As owners you must decide how much electricity to produce and the price at which you will offer to sell the electricity to the market. I will provide more details later in the semester.

Presentation
During the Climate Change unit there will be a day of in-class group presentations. More details will be provided later in the semester.

Letter
You will write a short Op Ed style letter as part of the Climate Change unit. The intent is to have your letter published in a newspaper/magazine, or by a website. More details will be provided later in the semester.

Class Participation
The format for this course will be a combination of lecture and discussion. Each Unit will include class time that is more lecture-based (to introduce the economic models and methods) and class time that is primarily for discussion (to discuss specific environmental cases and examples). The portion of the class participation grade that comes from discussion will be based on the quality and not quantity of comments. Occasionally there will be explicit "Participation Assignments" that will be the basis of in class discussion and/or group work.

Textbook and Readings
Required Texts:
Charles D. Kolstad (2011). *Environmental Economics, 2nd Edition*. New York: Oxford University Press, Inc.

William Nordhaus (2013). *The Climate Casino*. New Haven: Yale University Press.

Gernot Wagner and Martin L. Weitzman (2015). *Climate Shock*. Princeton: Princeton University Press.

Recommended Texts:
Walter Nicholson and Christopher Snyder (2008). *Microeconomic Theory, Basic Principles and Extensions, 10th Edition*. Canada: South-Western.

Michael W. Klein (1997). *Mathematical Methods for Economics*. New York: Addison-Wesley.

Articles and Academic Papers:
Links to the articles and academic papers listed on our course schedule will be posted on Blackboard. I suggest printing out the articles and keeping them in a 3-ring binder. You are responsible for the material in the articles for classroom discussion and the 2 exams.

Class Blackboard Site
We will be using Blackboard. All assignment grades will be entered throughout the semester on Blackboard. The following materials will be posted:

- Problem sets. All problem sets must be turned in during class at the beginning of class (or dropped off in my office before class).
- Templates of lecture notes (i.e. partial lecture notes).
- Old tests to review.
- A document with links to the class readings.

Academic Integrity
All students in this course are expected to adhere to university standards of academic integrity. Cheating, plagiarism, and other forms of academic dishonesty will not be tolerated. It is also dishonest to submit, without the instructor's consent, the same or similar work for more than one course. Ignorance will not be permitted as an excuse. If you are not sure whether something you plan to submit violates these standards, it is your responsibility to ask for clarification. You may either ask me, or consult credible sources such as:
http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml
As a reminder, the Case Western Reserve University Academic Integrity Standards can be found:
http://studentaffairs.case.edu/groups/aiboard/policy.html
[I thank Prof. Helper for granting me permission to use her Academic Integrity statement].

More comments on academic integrity:

- Cheating is a disservice to those classmates who study hard and play by the rules.
- I am confident that most students wouldn't cheat on an exam regardless of the circumstances. However, I am an economist and also recognize that there are some students that may be tempted to cheat on exams if it appears that the benefit outweighs the cost.
- To further dissuade academic dishonesty we will be taking a number of precautions that will increase the likelihood of catching anyone who cheats including some measures that will not be obvious unless you happen to be caught.