

**UNIVERSITY OF COLORADO AT BOULDER, DEPARTMENT OF ECONOMICS**  
**ECON 3545-001: ENVIRONMENTAL ECONOMICS**  
**SPRING 2010**

<b>INSTRUCTOR</b>	Deborah Baker
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<b>OFFICE</b>	ECON 307
<b>OFFICE HOURS</b>	TR 12:00-1:00 and by appointment
<b>COURSE WEBSITE</b>	CULearn
<b>TIME</b>	TR 2:00-3:15
<b>LOCATION</b>	HUMN 150

### **INTRODUCTION**

Approaching the end of the 20<sup>th</sup> century environmental quality became a major focus of public concern. In response, environmental agencies have blossomed; environmental interest groups advocate at all levels of the political system; even politicians include environmental issues as part of their agenda. In academia, scientists and engineers focus on developing solutions for environmental problems; environmental law has become a specialized field. Within economics, environmental economics has emerged as a new and popular focus of study.

Environmental Economics is the study of the interaction between the economic behavior of individuals or groups of people and environmental quality. In understanding how human values and institutions affect our demand for environmental quality, public policies aimed at bringing about improvements in environmental quality can be designed more effectively.

This course is designed to teach the student about environmental economics as a field, with an emphasis on evaluating environmental policy. The first section of this course will focus on economic theory with environmental applications. We will examine market outcomes and market failure, the Equimarginal Principle, Benefit-Cost analysis, the Coase Theorem, pollution taxes versus pollution permits, and other types of environmental policy design. The second section of this course will review several specific environmental issues by identifying the environmental problem, examining the existing policies, and discussing how these policies may be improved.

### **TEXTBOOK**

B.C. Field and M.K. Field, *Environmental Economics: an introduction*, 5th edition, 2008.

## GRADING

Homework (5% each)	20%
Group Project	25%
Paper (20%)	
Summary (5%)	
Midterm	25%
Final Exam	30%

<u>Score</u>	<u>Grade</u>	<u>Score</u>	<u>Grade</u>
93-100%	A	73-76%	C
90-92%	A-	70-72%	C-
87-89%	B+	67-69%	D+
83-86%	B	63-66%	D
80-82%	B-	60-62%	D-
77-79%	C+	≤59%	F

### A. HOMEWORK

There will be *four* homework assignments throughout the term. The format may include: multiple choice questions, short answer questions, or essays. Homework will be posted on the course website one week prior to the due date. Students may work together to complete the homework assignment, but each student must turn in their own write-up. Late assignments will not be accepted.

### B. GROUP PROJECT

In groups of three or four, students will investigate an existing environmental policy that was not discussed in detail in class. By March 16<sup>th</sup> each group must submit *one paragraph* identifying the group members and topic. Students will write *a paper* which identifies the environmental problem, describes the existing environmental policy, and evaluates whether the policy is effective from an economic standpoint. The paper should be approximately 5-8 pages in length and no more than 10 (1.5 spacing). In addition, each group will write a *1-page summary* on their findings that will be distributed to the rest of the class. Projects are due April 27<sup>th</sup>. In addition, each student will complete a group evaluation form to be turned in with the project. Late projects will not be accepted. If time permits I will select groups with new and interesting environmental policies to briefly discuss their project to the class. (See “Group Project Guidelines” on the course website for more details).

### C. EXAMINATIONS

There will be *two examinations* for this course. The final examination is *comprehensive*. The format of the exams will be a mixture of True/False, Multiple Choice and Short Answer problems. There will be no opportunities to make up a missed exam.

## ASSIGNMENTS AND DATES

Homework 1	Tuesday, February 2
Homework 2	Tuesday, February 23
Midterm	Thursday, March 4
Project Status	Tuesday, March 16
Homework 3	Tuesday, March 30
Homework 4	Tuesday, April 20
Group Project	Tuesday, April 27
Final Exam	Saturday, May 1, 4:30pm-7:00pm

## TENTATIVE SCHEDULE

Note: This schedule is tentative, meaning it may change. I will make announcements in class regarding any changes to the schedule, and post these announcements on the course website.

<b>Date</b>	<b>Topic</b>	<b>Readings</b>
1/13, 15	The Economy and the Environment	Chp. 1 & 2, Lomborg Debate
1/19, 22	Demand and Supply (WTP and Costs)	Chp. 3
1/26, 28	Markets and Efficiency	Chp. 4
2/2, 4	The Economics of Environmental Quality	Chp. 5
2/9, 11	Environmental Analysis: Benefits vs. Costs	Chp. 6
2/16, 18	Measuring Benefits, CV Debate	Chp. 7, Portney, Hanemann, Diamond and Hausman
2/23, 25	Measuring Costs	Chp. 8
3/2	Review	
3/4	<i>MIDTERM</i>	
3/9	Evaluating Environmental Policy	Chp. 9
3/11	Decentralized Policy	Chp. 10
3/16	Command-and-Control Strategies	Chp. 11
3/18	Incentive-Based Strategies: Taxes	Chp. 12
3/30	Incentive-Based Strategies: Permits	Chp. 13
4/1	Water Pollution	Chp. 14
4/6	Air Pollution	Chp. 15
4/8	Toxic and Hazardous Waste	Chp. 16
4/13	State and Local Environmental Issues	Chp. 17
4/15	Energy and Transportation Issues	TBA
4/20	Comparative Environmental Policies, Economic Development and the Environment	Chp. 18 & 19
4/22, 27	Global Environment and International Agreements	Chp. 20 & 21
4/29	Review, Discussion of Projects	
5/1	<i>FINAL EXAM</i>	

## UNIVERSITY POLICIES

### **Disability Policy:**

If you qualify for accommodations because of a disability, please submit a letter from Disability Services to me in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Willard 322, and <http://www.Colorado.EDU/disabilityservices>

### **Religious Observance Policy:**

Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance. If you have a conflict, please contact me at the beginning of the semester so we can make proper arrangements.

### **Code of Behavior Policy:**

Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to such behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat all students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which they and their students express opinions.

Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records.

### **Discrimination & Harassment Policy:**

The University of Colorado at Boulder policy on Discrimination and Harassment (<http://www.colorado.edu/policies/discrimination.html>), the University of Colorado policy on Sexual Harassment and the University of Colorado policy on Amorous Relationships applies to all students, staff and faculty. Any student, staff or faculty member who believes s/he has been the subject of discrimination or harassment based upon race, color, national origin, sex, age, disability, religion, sexual orientation, or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the ODH and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://www.colorado.edu/odh>.

**Honor Code:**

All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council ([honor@colorado.edu](mailto:honor@colorado.edu); 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at <http://www.colorado.edu/policies/honor.html> and at <http://www.colorado.edu/academics/honorcode/>.