

**UNIVERSITY OF COLORADO AT BOULDER, DEPARTMENT OF ECONOMICS**  
**ECON 3545-200: ENVIRONMENTAL ECONOMICS**  
**SUMMER 2009, TERM B**

<b>INSTRUCTOR</b>	Deborah Baker
<b>EMAIL</b>	<a href="mailto:bakerdl@colorado.edu">bakerdl@colorado.edu</a>
<b>OFFICE</b>	ECON 307
<b>OFFICE HOURS</b>	TR 11:00-12:00, by appointment
<b>TIME</b>	MTWRF 9:15–10:50
<b>LOCATION</b>	ECON 119

### **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, 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 indentifying 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.

## **ASSIGNMENTS AND DATES**

Article Summaries	7/15
Midterm 1	7/17
Paper and Presentation	7/27 – 7/30
Midterm 2	8/3
Final Exam	8/7

### **A. ARTICLE SUMMARIES**

On July 15<sup>th</sup> class time will primarily be devoted to a discussion/debate on the Contingent Valuation method. You will be required to read 3 articles in preparation of the discussion/debate. You must write a 2 page summary on the debate, due at the beginning of class.

### **B. GROUP PROJECT**

In groups of three, students will investigate an existing environmental policy in the United States, identifying the environmental problem, describing the existing policy, and evaluating whether the policy is effective. Students will write a paper and present their findings to the class during the week of July 27<sup>th</sup>–30<sup>th</sup>.

Topics for the project are as follows:

1. Clean Air Act
2. Taxes and Cap-and-Trade: Air Pollution
3. Mobile-Source Emissions
4. Renewable Energy: Renewable Portfolio Standard and Feed-in-Tariffs
5. Clean Water Act
6. Municipal Wastewater Treatment
7. Drinking Water Quality
8. Non-Point Source Emissions
9. Chemical Use for Production and Consumption
10. Toxic Emissions
11. Hazardous Waste
12. Radioactive Waste
13. Nonhazardous Solid Waste
14. Land-Use
15. Montreal Protocol
16. Kyoto Protocol

The paper should be approximately 4-6 pages in length, 1.5 spacing.

Each presentation will be approximately 15 minutes in length. Every student in the group must present. Plan your presentation so there is enough time for questions/discussion.

## C. EXAMINATIONS

There will be three 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.

### GRADING

Participation, In-Class Assignments	5%
Article Summaries	10%
Paper and Presentation	20%
Midterm1	20%
Midterm 2	20%
Final Exam	25%

<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

## 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 my website.*

<b>Date</b>	<b>Topic</b>	<b>Readings</b>
7-Jul	The Economy and the Environment	Chp. 1 & 2
8-Jul	Demand and Supply (WTP and Costs)	Chp. 3
9-Jul	Markets and Efficiency	Chp. 4
10-Jul	The Economics of Environmental Quality	Chp. 5
13-Jul	Environmental Analysis: Benefits vs. Costs	Chp. 6
14-Jul	Measuring Benefits, Applications	Chp. 7
15-Jul	CV Debate	Portney, Hanemann, Diamond and Hausman
16-Jul	Measuring Costs, Review	Chp. 8
<b>17-Jul</b>	<b>Midterm 1</b>	
20-Jul	Evaluating Environmental Policy	Chp. 9
21-Jul	Decentralized Policies	Chp. 10
22-Jul	Command-and-Control Strategies	Chp. 11
23-Jul	Incentive-Based Strategies: Taxes	Chp. 12
24-Jul	Incentive-Based Strategies: Permits	Chp. 13
27-Jul	Group Presentations	
28-Jul	Group Presentations	
29-Jul	Group Presentations	
30-Jul	Group Presentations	
31-Jul	Review	
<b>3-Aug</b>	<b>Midterm 2</b>	
4-Aug	Environmental Policies in Other Countries	Chp. 18
5-Aug	Economic Development and the Environment	Chp. 19
6-Aug	Conclusions, Review, FCQs	Fullerton and Stavins
<b>7-Aug</b>	<b>Final</b>	

## 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/>.