

# Environmental Economics

## ECON 3545 - Spring 2015

<b>Instructor</b>	Richard Peterson
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This is the best way to contact me. If you do not receive a reply within 24 hours, please assume I did not get your email and resend it.	
<b>Office</b>	ECON 14
<b>Office Hours</b>	Wednesday 1:00pm – 2:00pm, Friday 2:00pm – 3:00pm, and by appointment, via email
<b>TA</b>	Scot Beattie
<b>Email</b>	Scot.Beattie@colorado.edu
<b>Office</b>	ECON 309A
<b>Office Hours</b>	Tuesday & Thursday 10:45 am – 11:45 am
<b>Class Meetings</b>	Tues/Thurs 2:00-3:15, MCOL W100
<b>Course Website</b>	The course website is accessed through Desire2Learn where you will find all related course materials.

### Course Description and Objectives

The field of economics provides many insights on the use and preservation of our natural environment. In this course we will investigate the unique contributions of economics to studying environmental issues and analyzing environmental policies from an economic perspective. From this course students should have a clear understanding of how economic theory informs public policy as well as some knowledge of what policies are currently being used in environmental issues.

This course is designed for non-economics majors and as such will require less math than other economics courses (see prerequisites). Instead we will blend learning economic theory and (some) mathematical models with discussion of real world examples.

### Prerequisites

A basic understanding of microeconomics is required for this class. Students should have previously taken ECON 2010 (Principles of Microeconomics) or an equivalent class at another institution.

This course requires students to know basic algebra at the same level as the aforementioned ECON 2010. There will not be any formal math review as part of this class.

### Readings & Other Materials

Tom Tietenberg & Lynne Lewis (2009). *Environmental Economics & Policy*, Pearson, 6th Edition (required)

Tietenberg & Lewis (2009) is the required text for this class and will be a nice resource for most of the material we cover. It is an expensive book so I encourage you to look for the cheapest buying option (including used and ebooks). I do not have experience with previous editions and thus cannot say whether or not the material is the same.

Additional required readings/videos/audio will be assigned throughout the semester. I will provide these assignments either through the course website, or with explicit instructions. These additional readings will include original source readings on important environmental economics, current reporting on environmental issues, and video or audio on specific topics.

### **Grading**

Your final grade will come from four components:

20%	Midterm Exam, March 5 <sup>th</sup>
25%	Final Exam, TBA Finals Week
25%	Group Assignment, proposal and groups February 17 <sup>th</sup> , final paper April 21st
30%	Homework

I retain the right to curve assignments and exams, however, any curve will never harm any student in the class (it must be a pareto improvement over the original allocation.) Letter grades will be assigned to a typical scale with A, 90%-100%, B, 80% - 89%, C, 70% - 79%, D, 60% - 69%, and anything below 60 is an F. + or - letter grades will be assigned if you are within 2% of a grade cutoff.

### **Exams**

We will take a total of two exams in this course: one midterm and the final exam. The midterm exam will be held during normal class time. The final exam will be cumulative, but will focus on new material. There are no makeup exams. If you miss the midterm then your final will be worth 45% of your final grade. The final exam cannot be dropped for any reason. If you have three or more final exams scheduled on the same day, you are entitled to arrange an alternative exam time for the last exam or exams scheduled on that day. To qualify for rescheduling final exam times, you must provide evidence that you have three or more exams on the same day, and arrangements must be made with me no later than the end of the sixth week of the semester (February 20, 2015).

Scientific and basic calculators will be allowed for the midterm and final, but you will not be able to use cell phones or graphing calculators. Additionally, you are not able to share calculators during exams. It is my intention that any calculations you will need to do will be easy to do with pen and paper, but I fully understand the comfort of having an electronic adding machine in high pressure situations.

## **Homework**

There will be 3 graded problem sets assigned through the semester (2 before the midterm, and 1 after). These problems sets will be a combination of economic modeling problems (think supply and demand from microeconomics) and short answer. I encourage you to work with other people in the class, but every person will need to turn in their own problem set. Short answer questions should be answered in your own words, although discussion with others is encouraged. Each problem set will be worth 5% of your overall grade. Problem sets are due at the beginning of class on the assigned due date.

For each assigned reading (or other media) assignment you will write a 1-page (double-spaced) summary that highlights the central thesis of the reading, the main arguments the author has made, as well as a brief reaction from you including additional arguments for or against the author's thesis. Reading assignments will be randomly graded and will collectively make up 15% of your final grade. Reading assignments are due at the beginning of class on the assigned due date.

## **Group Assignment**

You will form groups of 3 to 4 students and write a 4 – 5 pg (single spaced) policy analysis of a current environmental policy or economic issue with proposed policy solutions. Each group member will also submit a 1 pg (single spaced) argument for or against the policy using the issues discussed in the group paper. You will submit a short proposal and the names of the students in your group on February 17<sup>th</sup>. The final paper (both group and individual) will be due on April 21<sup>st</sup>. I will provide more details of my expectations later on.

## **FERPA**

In accordance with the law, I am not allowed to ever email your grades to you or to distribute them in any way that is identifiable. As such, I will post grades only on D2L, or you may come to office hours to get your grades. Never ask me to email them or bring them to class; I will not do either.

## **Students with Disabilities**

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services at least two weeks before exams so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Center for Community N200, and <http://www.Colorado.EDU/disabilityservices>.

If you have a temporary medical condition or injury, see guidelines at <http://www.colorado.edu/disabilityservices/go.cgi?select=temporary.html>.

Disability Services' letters for students with disabilities indicate legally mandated reasonable accommodations. The syllabus statements and answers to Frequently Asked Questions can be found at <http://www.colorado.edu/disabilityservices>.

**Religious Observance Policy**

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly 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 the first week of class so that we can make proper arrangements. See full details at [http://www.colorado.edu/policies/fac\\_relig.html](http://www.colorado.edu/policies/fac_relig.html).

**Classroom Behavior Policy**

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran's status, sexual orientation, gender, gender identity, and gender expression, age, disability, and nationalities. See policies at <http://www.colorado.edu/policies/classbehavior.html> and at [http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student\\_code](http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code).

**Discrimination and Harassment Policy**

The University of Colorado at Boulder Discrimination and Harassment Policy and Procedures, the University of Colorado Sexual Harassment Policy and Procedures, and the University of Colorado Conflict of Interest in Cases of Amorous Relationships Policy apply to all students, staff, and faculty. Any student, staff, or faculty member who believes s/he has been the subject of sexual harassment or discrimination or harassment based upon race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127, or the Office of Student Conduct (OSC) at 303-492-5550. Information about the ODH, the above referenced policies, 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); 303-735-2273). 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/>.

**Tentative Schedule**

Week of	Book Chapter	Topics	Exams/Assignments
Jan 12	Ch 1	Microeconomics Review, Environmental Economics intro	
Jan 19	Ch 4	Property Rights, Externalities, and Environmental Problems	
Jan 26	Ch 6	Population and Resource Depletion	
Feb 2	Ch 2	Valuing the Environment	
Feb 9	Ch 3	Methods in Valuing the Environment	
Feb 16	Ch 5	Sustainability	Groups and Paper proposal due 2/17
Feb 23	Ch 14	Economics of Pollution	
Mar 2	Ch 14 Cont.	Economics of Pollution cont., Midterm review	Midterm 3/5
Mar 9	Ch 15	Stationary Air Pollution	
Mar 16	Ch 16	Climate Change	
Mar 23		Spring Break!	
Mar 30	Ch 17	Transportation	
Apr 6	Ch 18	Water Pollution	
Apr 13	Ch 19	Waste and Recycling	
Apr 20	Ch 20	Development and the Environment	Paper due 4/21
Apr 27	Ch 21	Sustainable Development	
TBA	Final TBA		