

University of Colorado Boulder

**Econ 8535 – Environmental Economics I
Fall 2015**

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Lectures: Tuesday and Thursday, 11:00-12:15 Econ 5

Office hours: Tuesday 12:30-1:30 and Wednesday 1:00-2:30

Course Description: This course provides a Ph.D. level survey of environmental economics. We will examine the literature and methods used in analyzing environmental and related resource economics problems from an economic perspective. As this is the first course in a two course sequence, the focus will be primarily on theoretical concepts and a broad overview of key ideas, with empirical methods covered in the second course.

Course Organization: This course will be a mix of lecture and discussion. There will be six major units, and you will be expected to write four 8-10 page papers on units of your choice. For one of the units that you choose to write on, you will be required to lead discussion for one class. The paper and presentation are discussed in more detail below.

Textbooks: There are no required textbooks, but there are two “standards” in environmental and resource economics that are worth acquiring

Environmental: William J. Baumol and Wallace E. Oates, *The Theory of Environmental Policy*, 2nd edition (Cambridge University Press, 1988).

Resource: Jon M. Conrad and Colin W. Clark, *Natural Resource Economics: Notes and Problems*, Cambridge University Press, 1987.

In addition, Robert N. Stavins, *Economics of the Environment: Selected Readings*, 6th Ed, 2012, is an excellent collection of important articles in environmental economics.

For a more intuitive treatment of many of the topics we’ll discuss, you should also consider: Nick Hanley, Jason F. Shogren, and Ben White; *Environmental Economics: In Theory and Practice*, 2nd Ed, 2007

The reading list, drawn primarily from academic journals, will be provided in a separate document. Readings should be available electronically. Students are expected to have read all materials prior to class, and should be prepared to discuss and answer questions regarding the readings.

Grading:

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|-------------------------|-----|
| Papers and Presentation | 60% |
| Assignments | 20% |
| Class Participation | 20% |

Papers and Presentation: You will be required to write four papers, each roughly 8-10 pages in length. They should be professional (organized and typo-free) and include a complete list of citations. You should view the paper as a literature review on a relatively narrow topic within each unit – that is to say that you should focus on a specific topic within each unit, rather than review the entire unit. The reading list should be viewed as a “gateway” to the literature, and I expect a majority of citations to be papers that you find on your own. For the presentation, I expect you to be able to lead the class discussion based on your paper for that unit. Preparing slides or handouts to facilitate your efforts is encouraged. The presentation will counted as “equivalent” to a paper, and I will take your top four scores (out of the four papers and presentation) in computing your grade.

Assignments: There will be four assignments that will enhance your abilities to develop economic models. As opposed to typical “problem sets,” the assignments will be modeling exercises where the emphasis will be on developing simple economic models of economic phenomena.

Class Participation: Students are expected to have read all materials prior to class, and should be prepared to discuss and answer questions regarding the readings. Attendance is of course required.

Tentative Schedule

Introduction – Foundations of Environmental and Resource Economics (Week 1)

I. Market Failure and Environmental Goods (Week 2-3)

- A. Market success
- B. Externalities and Welfare

II. Environmental Valuation (Week 4-6)

- A. WTA and WTP
- B. Revealed Preference methods
- C. Stated Preference methods

III. Policy Choice I (Week 7-8)

- A. Market-based vs command and control
- B. Taxes and permits

IV. Policy Choice II (Week 9-10)

- A. Uncertainty and selection
- B. Double-dividend and second-best policy

V. Resource Economics (Week 11-12)

- A. Non-renewable Resources
- B. Renewable Resources
- C. Property Rights and Institutions

VI. Additional Topics (Week 13-15)

- A. Waste and recycling
- B. Uncertainty, dynamics and discounting
- C. Transboundary pollution and international agreements

Important Stuff

1) *If you qualify for accommodations because of a disability, please submit to your professor a letter from Disability Services in a timely manner (for exam accommodations provide your letter at least one week prior to the exam) so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact Disability Services at 303-492-8671 or by e-mail at dsinfo@colorado.edu. If you have a temporary medical condition or injury, see [Temporary Injuries guidelines](#) under the Quick Links at the [Disability Services website](#) and discuss your needs with your professor.*

2) *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.*

See full details at http://www.colorado.edu/policies/fac_relig.html

3) *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. 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. For more information, see the [policies on classroom behavior](#) and [the student code](#).*

4) *The University of Colorado Boulder (CU-Boulder) is committed to maintaining a positive learning, working, and living environment. CU-Boulder will not tolerate acts of discrimination or harassment based upon Protected Classes or related retaliation against or by any employee or student. For purposes of this CU-Boulder policy, "Protected Classes" refers to race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political*

affiliation or political philosophy. Individuals who believe they have been discriminated against should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or the Office of Student Conduct and Conflict Resolution (OSC) at 303-492-5550. Information about the OIEC, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be found at the [OIEC website](#). The [full policy on discrimination and harassment](#) contains additional information.

5) 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; 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). Additional information regarding the [Honor Code policy can be found online](#) and at the [Honor Code Office](#).