

EC 333: Issues in Resource and Environmental Economics

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Office Hours: MW 10:00-11:00 & by appointment

Office: PLC 523

Class Hours: TR 12:00-1:20

Class Room: JAQ 101

Course Description

Course Overview

This course focuses on applying basic economic theory to natural and environmental resources problems. Topics include economic perspectives on the concepts of sustainability and natural resource scarcity (static and dynamically efficient allocations) for nonrenewable or depletable resources (minerals, groundwater), optimal management of renewable resources (surface water, fisheries, forests), and pollution management strategies (including use of economic incentives such as pollution taxes and/or tradable permits, and legal liability for pollution control).

Goals for the course include: familiarity with the economic models pertaining to issues of allocation and management of natural resources and environmental goods; expanded understanding of externalities, a topic not covered in much detail in most other field courses in economics; familiarity with how economists conduct benefit-cost analysis of alternative allocations of environmental goods where markets do not exist; and an introduction to the political economy of environmental protection.

Learning Outcomes

- Strategies to deal with:
 - environmental externalities
 - management of common resources whether they be renewable or nonrenewable and the importance of discounting in obtaining the efficient solution
 - management of environmental quality (pollution policies and regulatory policies)
- Valuation techniques
- How to use benefit-cost analysis to value policy and management options, including whether it may be appropriate to use the precautionary principle.
- Main issues confronting countries with respect to natural resources, population, food and climate change.

Prerequisites

EC 201 (Introduction to Microeconomics) is a prerequisite of this course. The basic premise of this course is to apply the economic concepts you learned in EC 201 to environmental and natural resource issues. We will typically review the relevant concepts before applying them but I expect that you will already be somewhat familiar with them. Your notes or textbook from EC 201 may be a useful resource.

Course Materials

Recommended Textbook: Nathaniel O. Keohane and Sheila M. Olmstead. [Markets and the Environment](#).

Supplemental Reading: There will be additional directed readings to supplement the textbook. These readings will be posted on Canvas as we go through the course. Also, when appropriate, related news articles/editorials will be posted on Canvas. You may be asked to comment on the issues addressed in any of the news articles or editorials discussed in class and posted on Canvas.

Course Structure

Canvas

All announcements, assignments, grades, and supplemental materials will be posted on canvas and announced in class; being current on all information contained in these course announcements is the student's responsibility. The canvas announcements in this course will contain critical information, so make sure you are receiving them. If you have any difficulties accessing canvas it is your responsibility to resolve the issue; for help with canvas you can contact the UO Libraries Computer Help Desk at 541-346-1807.

Grading Policy

Your final course grade will be based solely on your performance in the course and will be determined as follows:

- 30% Midterm Exam
- 30% Final Exam
- 40% Written Homework

Students taking the class as pass/no pass must earn a C- or better to pass. Once all coursework is graded, I will assign final letter grades based on a curve. Unless there has been a legitimate grading or clerical error, once final letter grades are awarded, I will not consider changing your grade so do not ask.

Remote Instruction

While we are operating under remote instruction, Canvas will be our main resource and method of communication. I will upload lecture slides to Canvas along with pre-recorded lectures. You may watch the lectures at any time that is convenient for you but I suggest that you watch them on the days that face-to-face class would be taking place. You are responsible for all of the material in the slides and recorded lectures.

Assignments will be posted to Canvas and you will submit your homework via Canvas by 11:59 p.m. on the day that it is due. If we are under remote instruction during the time of the midterm and/or the final exam, the exams will be administered through Canvas. Information about exams will be conveyed via Canvas as we get closer to exam time.

Course requirements, deadlines, and grading percentages are subject to change. Information about changes in this course will be communicated as soon as possible by email, and on Canvas. Students should refer to Canvas, read any announcements, and access assignments. Students are also encouraged to continue the readings and other assignments as outlined on this syllabus.

Assessments

Exams: There will be two exams for this course, a midterm and a final. The midterm is scheduled for **Thursday, April 30 at 12:00** and the final is scheduled for **Friday, June 12 at 8:00**. In the event that we are doing remote instruction for the midterm and/or final exam, the exams will be administered through Canvas at these times. If you have work or other obligations at these times, please let me know in advance so we can schedule an exam time for you in Canvas.

If the midterm is missed or if there is a technical difficulty completing the midterm, the weight of the midterm will be applied to the final exam (i.e. your final will be worth 60% of your grade). A missed final due to an unanticipated emergency will be handled with an incomplete for the course until the exam is completed. Please notify me as soon as possible if you will not be able to take the final or have missed it due to an emergency. Otherwise, a grade of zero will be assigned to the missed final exam.

Homework: There will be 4-5 homework assignments throughout the term. You are welcome to work with other students on the homework but you must submit **your own work**. Homework assignments are to be typed or **CLEARLY** written in pencil, blue or black ink. Assignments will be posted under **Assignments** on Canvas and must be turned in on Canvas **by 11:59 p.m.** on the day that it is due, unless announced otherwise. You may upload a typed document or a scanned document with written answers. If you upload a scanned document or a photo, please make sure that it is readable.

Late Assignment Policy: Late assignments will be accepted for no penalty if a valid excuse is communicated to the instructor before the deadline. After the deadline, assignments will be accepted for a 50% deduction to the score up to 2 days after the deadline. After this any assignments handed in will be given 0.

Grade Appeals: Any requests for re-grading an exam or homework must be submitted in writing or via email within one week of when the exam or homework answers are posted. A re-grading request should include an argument for why you feel your answer was correct. I reserve the right to re-grade the entire exam or homework when a request to re-grade a specific question is made.

Course Policies

Technology Policy

Laptops and tablets will be allowed for note taking purposes. However, if you wish to use a laptop for note taking, I ask that you minimize distractions to other students. Cell phones should not be seen or heard during class time.

Attendance Policy

Your grade will not formally depend on your attendance during the lectures, but you are responsible for everything covered in class. Any notes posted to Canvas are not intended to be a perfect substitute for class time.

Office Hours Policy

My office hours are specific times set aside for you. You are welcome to stop in during these hours to ask any questions or discuss any material from the course. If you cannot make my office hours, please e-mail me and we can set up an appointment.

For the time that we are doing remote instruction, my office hours will be held remotely via Zoom or Canvas Conferences. I will make an announcement in Canvas about office hours at the beginning of the term. You may also e-mail me to set up an appointment for remote office hours.

Academic Integrity and Honesty

Exams: All in-person exams will be closed-note and closed-book. Students will be permitted to have a pen or pencil, ruler or straightedge, and a non-programmable calculator on their desk during the exam. Under no circumstances will students be allowed to use a cell phone during the exam, including as a calculator. The use of any other assistance or sources of information is prohibited and will be considered cheating. If the exams are administered through Canvas, I will have you state that you will not violate the university's academic integrity policy. Please do not violate it – cheating will not be tolerated.

Homework: Students are allowed and encouraged to work together on homework. However, each student must hand in their own work separately. **Simply changing the name on a typed up homework assignment will not be accepted.**

Any violations of the academic integrity policy will result in a failing grade for the assignment or exam and a complaint may be filed with the University's Hearing Board. Cheating of any

form will not be tolerated. Additional information about maintaining your academic integrity is available [here](#). Information about plagiarism is available [here](#).

Diversity

The University of Oregon is dedicated to the principles of equal opportunity and freedom from unfair discrimination for all members of the university community and an acceptance of true diversity as an affirmation of individual identity within a welcoming community. This course is committed to upholding these principles by encouraging the exploration, engagement, and expression of distinct perspectives and diverse identities.

All of us associated with the course - you included - are expected to value each class member's experiences and contributions and to communicate disagreements respectfully. Please notify me if you feel aspects of the course undermine these principles in any way. You may also notify the Department of Economics at 541-346-8845. For additional assistance and resources, you are also encouraged to contact the following campus services:

- Office of Equity and Inclusion: 1 Johnson Hall | 541-346-3175 | [Website](#)
- Center on Diversity and Community: 54 Susan Campbell Hall | 541-346-3212 | [Website](#)
- Bias Response Team: 164 Oregon Hall | 541-346-1134 | brt@uoregon.edu | [Website](#)

Accessibility and Accommodations

The University of Oregon is working to create inclusive learning environments. Please notify me if there are any aspects of this course that result in disability-related barriers to your participation. For more information or assistance, contact:

Accessible Education Center: 164 Oregon Hall | 541-346-1155 | [Website](#)

If you require accommodations of any kind due to a documented disability please have the Accessible Education Center contact me verifying your need and detailing the appropriate accommodations. This is typically done automatically by the AEC at the beginning of a term. If there are new accommodations during a term or any changes to any existing accommodations please keep me advised as soon as possible.

If your accommodations involve any proctoring of exams at the AEC you will be responsible for scheduling those exams with sufficient anticipation with the AEC. Keep in mind that proctored midterms need to be scheduled at least seven days in advance and that proctored final exams need to be scheduled by the 5:00pm of the Friday of week 8 of the course. As you can see on the last page of this syllabus, the exams for this course are already set. I recommend that you make the necessary arrangements with AEC now.

Schedule and weekly learning goals

The schedule is tentative and subject to change. Any changes to the schedule will be announced in class and on Canvas. The learning goals below should be viewed as the key concepts you

should grasp after each week, and also as a study guide before each exam, and at the end of the term. The applications in the second half of the term tend to build on the concepts in the first half of the term though, so it is still important to at least review those concepts throughout the term.

Week 01, 03/30 - 04/03:

- Introduction
- 201 Review

Week 02, 04/06 - 04/10:

- Externalities
- Coase Theorem

Week 03, 04/13 - 04/17:

- Common Property Resources-Fisheries
- Common Property Resources-Forestry

Week 04, 04/20 - 04/24:

- Common Property Resources-Water
- Applications of Renewable Resource Issues

Week 05, 04/27 - 05/01:

- Review
- **Midterm:** Thursday, April 30. 12:00 p.m.

Week 06, 05/04 - 05/08:

- Pollution Control Policies

Week 07, 05/11 - 05/15:

- Time Discounting
- Non-renewable Resources

Week 08, 05/18 - 05/22:

- Energy
- Valuation Methods

Week 09, 05/25 - 05/29:

- Valuation Methods
- Benefit Cost Analysis

Week 10, 06/01 - 06/05:

- TBA
- Review

Week 11, 06/08 - 06/12:

- **Final Exam:** Friday, June 12. 8:00 a.m.