

Economics 333: Issues in Resource and Environmental Economics

University of Oregon

Department of Economics

Fall 2021

Instructor: Shan (Evie) Zhang

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Lectures: T, R 12:00 - 13:20 pm Lillis 111

Office Hours: T, R 13:20 -13:50 pm Lillis 111

Office Hour : M, W 2 - 2:30pm PLC430

Office Hour Zoom Link : <https://uoregon.zoom.us/j/94751201242>

TA : John Morehouse

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Course Description: This course focuses on applying basic economic theory to problems involved with natural and environmental resources. Topics include economic perspectives on the concepts of sustainability and natural resource scarcity (static and dynamically efficient allocations) for non-renewable 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 for 333: Learning outcomes for this course include students being able to demonstrate their understanding of:

- Strategies to deal with:
 - environmental externalities
 - management of common resources whether they be renewable or non-renewable 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) 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.

Recommended Textbooks:

- **Jonathan M. Harris and Brian Roach**, Environmental and Natural Resource Economics: A Contemporary Approach, 3rd Edition (ME Sharpe, 2013).
- **Nathaniel O. Keohane and Sheila M. Olmstead**, Markets and the Environment.

Course Announcements: Announcements will periodically be made in class concerning issues relevant to the course, including potential changes to the tentative midterm dates, amendments to the tentative outline of topics for the course, class cancellations, etc. These announcements will be made in class, emailed to your uoregon.edu email account, and/or posted under the Announcements section of the Canvas page for this class. Keeping current on all information contained in these course announcements is the student's responsibility.

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

Class participation	10%
Homework	30%
Midterm (Oct 28th, 12-120pm)	30%
Final (Dec 9th, 8-10am)	30%

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. **Your letter grade depends on overall performance (score distribution) of the class.** Unless there has been a legitimate grading or clerical error, **once final letter grades are awarded, I will not change them. Please refrain from asking me to change them.**

Attendance: Classes are in-person. **Students who are directed or advised to quarantine by the university or other public health authority or provider will be exempt from attendance policies. However, verification of quarantine status is required to send to me through email.** Please prioritize your and your peers' health above course attendance. I will work with you to make sure you can stay caught up with the class.

Class Participation (Positive externality in practice!): You are responsible to find current news articles/editorials within the past 5 years related to the topics of the lectures and give **an oral report** during the class. Each week there will be one or two topics to discuss. Each student will report one time (3 mins) throughout the term and there will be 3-4 reports every class. **Students who are directed or advised to quarantine by the university or other public health authority or provider can be exempt from class participation. Again, verification of quarantine status is required to send to me through email.** I will work with you to make sure you can get participation grades in other ways.

Homework: Homework assignments (5 in total) are to be typed or clearly written in pencil, blue or black ink, then uploaded in a **PDF file** (10% grade reduction for wrong format) on Canvas before class time on the due day, unless announced otherwise. I retain the option to grade in detail only a randomly drawn subset of questions from each homework.

Exams: Midterm and Final are cumulative and closed book/note. It will be held in class (Lillis 111). In the case of a missed midterm due to unanticipated, verifiable emergency situations, the student may be allowed to put the weight of the missed exam on the final exam, provided I am notified as soon as possible and verification of the emergency is provided to me by phone or email. **Do not take this class if you already know that you cannot make one of the scheduled exams (refer to the dates under the grading policy).**

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 explanation 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.

Students with Accessibility Needs: If you have a documented accessibility need and anticipate needing accommodations in this course, please make arrangements with me immediately. Please request that the counselor for students with disabilities (164 Oregon Hall) send me a letter verifying your required accommodations.

Academic Integrity: Academic dishonesty (ranging from plagiarizing homework to cheating on exams) will not be tolerated and violations will be reported to the University's Hearing Board. **Students found cheating or collaborating on an exam/homework will receive a failing grade on the exam/homework.** All cases of suspected cheating will be referred to the SCCS of review.

I do not consent to having notes from this class uploaded to the internet, including commercial note-selling websites. My course design is copyrighted by me and I do not consent to mass distribution of these materials. My lectures, including slide content, are my intellectual property and your creation of a derivative work (student notes from lecture) falls under this copyright protection. The distribution of course material (including your notes) to a commercial website falls under the UO's definition of plagiarism (see Student Conduct Code). Furthermore, such action violates UO's information technology "acceptable use policy" which prohibits use of its computing resources for commercial purposes.

The following schedule should be viewed as tentative and may be subject to change throughout the term.

Week	Date	Material	Textbook Reading (Harris and Roach 2013)
1	09/28/2021	Introduction	Ch 1
	09/30/2021	EC 201 Review	
2	10/05/2021	Externalities	Ch 3
	10/07/2021	Coase Theorem	Ch 3
3	10/12/2021	Coase Theorem	Ch 3
	10/14/2021	Common Property Resources-Fisheries	Ch 4
4	10/19/2021	Common Property Resources-Fisheries	Ch 4
	10/21/2021	Public Goods	Ch 4
5	10/26/2021	Common Property Resources-Forests	Ch 4
	10/28/2021	Midterm	
6	11/02/2021	Common Property Resources-Water	Ch 15
	11/04/2021	Pollution Control Policies	Ch 16
7	11/09/2021	Pollution Control Policies	Ch 16
	11/11/2021	Veterans Day no class!	
8	11/16/2021	Nonrenewable Resources Allocation over Time	Ch 5
	11/18/2021	Nonrenewable Resources Allocation over Time	Ch 5
9	11/23/2021	Nonrenewable Resource Recycling	Ch 11
	11/25/2021	Happy Thanksgiving!!	
10	11/30/2021	Energy Transition Policies	Ch 12
	12/02/2021	Regulations on Natural Gas Emissions	Ch 6
11	12/09/2021	Final Exam	

Course Policies Relating to COVID-19

Due to the ongoing COVID-19 pandemic, the following policies are in place for our course. These policies, as well as the rest of the syllabus, are subject to change in the event that the University changes or updates any of its COVID-19 policies and procedures.

- **Mask Policy:** The University requires faculty, staff, students, and visitors to use face coverings when in UO buildings, including classrooms. Please wear a suitable face covering over your nose and mouth during class and discussion section. Mesh masks, lace masks, and other face coverings with openings, valves, holes, vents, or other visible gaps are not in compliance with this policy. Students unable to wear face coverings can work with the Accessible Education Center (AEC) to find a reasonable accommodation. Only accommodations provided to me directly by the AEC will be honored. Students refusing to wear a face covering will be asked to leave the classroom.
- **Eating and Drinking During Class:** Due to the mask policy, the University has explicitly forbidden eating and drinking in classrooms. Please feel free to excuse yourself from class if you need a moment to get a drink or eat a snack. Even if you just need a moment alone, or to step outdoors to breathe some fresh air, please feel free to do so.
- **Academic Disruption:** In the event of a campus emergency that disrupts academic activities, 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. If we are not able to meet face-to-face, students should immediately log onto Canvas and read any announcements and/or access alternative assignments. Students are also expected to continue coursework as outlined in this syllabus or other instructions on Canvas. In the event that the instructor of this course has to quarantine, this course may be taught online during that time.
- **COVID Containment Plan for Classes:** As the University of Oregon returns to in-person instruction, the key to keeping our community healthy and safe involves prevention, containment, and support. Here is information critical to how the UO is responding to COVID-19.
 1. **Prevention:** To prevent or reduce the spread of COVID-19 in classrooms and on campus, all students and employees must:
 - Comply with vaccination policy
 - Wear face coverings in all indoor spaces on UO campus
 - Complete weekly testing if not fully vaccinated or exempted
 - Wash hands frequently and practice social distancing when possible
 - Complete daily self-checks
 - Stay home/do not come to campus if feeling symptomatic

– Complete the UO COVID-19 case and contact reporting form if you test positive or have been in close contact with a confirmed or presumptive case.

2. **Containment:** If a student in class tests positive for COVID-19, all relevant classes will be notified via an email by the Corona Corps Care Team with instructions for students and staff based on their vaccination status. Specifically:

– **Vaccinated and Asymptomatic students:** Quarantine not required, but daily self-monitoring before coming on campus is advised; sign up for testing through MAP 3-5 days after exposure if advised you are a contact.”

– **Unvaccinated or partially vaccinated students:** 14-day quarantine advised – do not come to class – and sign up for testing 3-5 days after notification through MAP, if asymptomatic, or through University Health Services (541-346-2770) or your primary care provider, if symptomatic.

– **Symptomatic students:** stay home (do not come to class/campus), complete the online case and contact form, and contact University Health Services (541-346-2770) or your primary care provide to arrange for immediate COVID-19 testing.

Students identified as a close contacts of a positive case will be contacted by the Corona Corps Care Team (541-346-2292).

- **Good Classroom Citizenship:** Wear your mask and make sure it fits you well. Stay home if you’re sick. Get to know your neighbors in class, and let them know if you test positive. Get tested regularly. Watch for signs and symptoms with the daily symptom self-check. Wash your hands frequently or use hand sanitizer.