

## AEC/ECON 352: ENVIRONMENTAL ECONOMICS AND POLICY

**Credits:** 3

**Course Meeting Times:** Lecture TR 2:00 - 3:20 pm, LINC 302

**Prerequisites:** AEC 250 or ECON 201 or ECON 201H (Bacc. Core Course)

### Course Catalog Description

This course provides an overview of the interrelationships between economic activity, the environment, and public policy. Through case studies, discussion groups, readings, and group activities, students learn how economists define and analyze environmental problems and the types of policies they advocate for managing environmental quality.

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### Professor

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**Extra Help Hours:** Mondays 2 pm - 3 pm; Wednesday 1 pm - 2 pm in Ballard 212. I am also available other times by email appt. for either in-person or Zoom meetings.

### Teaching Assistant

**Charlie Thompson**

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**Extra Help Hours:** Tuesdays 11 am - 12 noon; Thursdays 10 am - 11 am in Ballard 312

## Course Content

Week	Topic	Reading Assignments	Learning Activities
1	What is Environmental Economics?	Textbook <ul style="list-style-type: none"> <li>• Preface (p. xv - xvii)</li> <li>• Chapter 1 (p. 1 - 10)</li> <li>• Chapter 12 (p. 254-258)</li> </ul> “How Economists See the Environment” “Rescuing Environmentalism”	Canvas Discussion Board: Introductions Quiz #1
2	How Markets Work	Textbook <ul style="list-style-type: none"> <li>• Chapter 4 (p. 69-79)</li> </ul>	In-Class Assignment (ICA) #1 Problem Set #1
3	Market Failures and Externalities	Textbook <ul style="list-style-type: none"> <li>• Chapter 5 (p. 80 - 85)</li> </ul> “The Trouble with Externalities”	ICA #2 Quiz #2
4	Public Goods and Open Access Resources	Textbook <ul style="list-style-type: none"> <li>• Chapter 5 (p. 85 - 98)</li> </ul>	ICA #3 Problem Set #2
5	Pollution Control Model and Pollution Standards	Textbook <ul style="list-style-type: none"> <li>• Chapter 2 (p. 11 - 30)</li> <li>• Chapter 8 (p. 143 - 144)</li> <li>• Chapter 9 (p. 168 - 173)</li> </ul>	ICA #4 Midterm Practice Problems
6	Market-based Environmental Policies	Textbook <ul style="list-style-type: none"> <li>• Chapter 8 (p. 144 - 167)</li> <li>• Chapter 9 (p. 168 - 184; 190- 198)</li> <li>• Chapter 10 (p. 199 - 207; 214-230)</li> </ul>	<b>Midterm Exam</b>
7	The Coase Theorem	Textbook <ul style="list-style-type: none"> <li>• Chapter 9 (p. 143 - 144)</li> </ul>	ICA #5 Problem Set #3 Quiz #3
8	Cost Benefit Analysis, Discounting, & Nonmarket Valuation	Textbook <ul style="list-style-type: none"> <li>• Chapter 3 (p. 55 - 68; 44 - 49)</li> <li>• Chapter 2 (P. 30 - 34)</li> </ul>	ICA #6 Writing Assignment Quiz #4
9	Nonmarket Valuation Methods	Textbook <ul style="list-style-type: none"> <li>• Chapter 3 (p. 55 - 68)</li> </ul>	ICA #7 Problem Set #4 Quiz #5
10	Special Topics: TBD	None	Problem Set #5
Finals		<b>Thurs. June 13<sup>th</sup> @ 12 noon</b>	<b>Final Exam</b>

## Course Objectives

The focus of this course is the application of basic economic tools to understand and evaluate environmental issues and policies. The course will introduce concepts such as externalities, property rights, open access resources, non-market goods and public goods. We will use the economic foundation developed in this course to discuss current policy issues including climate change, reducing costs of regulations, and dealing with point and non-point source pollution. My objectives for this course are to:

- 1) Provide students with a clear understanding of how to apply economic theory to issues of the environment.
- 2) Introduce students to the theory, empirical findings, and important policy implications of environmental economics and policy at a level appropriate for advanced undergraduate students.
- 3) Increase students' ability to define environmental problems and analyze information.

## Course Specific Measureable Student Learning Outcomes

Upon successful completion of this course, a student will be able to:

- 1) Recognize how economics can inform and improve environmental policy.
- 2) Apply principles of economics to the environment.
- 3) Understand and interpret the concepts of market equilibrium, market failure, and externalities.
- 4) Analyze environmental issues within a graphical economic modeling framework.
- 5) Compare and evaluate the effectiveness of alternative policy solutions to environmental problems.

## Baccalaureate Core

This course fulfills the Baccalaureate Core requirement for the Contemporary Global Issues category. It does this by teaching students about the interdependencies between social, economic, political, and environmental issues and how economics can be a common language to discuss and critically evaluate environmental problems and propose solutions. The scale of environmental issues (i.e., global) and the myriad of disciplines involved necessitate that students acquire an understanding of the dimensionality of these problems from both global and multidisciplinary perspectives, as well as a fundamental disciplinary knowledge of how economists approach quantifying and solving these complex problems. Upon successful completion of this Baccalaureate Core *Synthesis* course, a student will be able to:

- 1) Analyze the origins, historical contexts, and implications of contemporary global issues.
- 2) Explain the complex nature and interdependence of contemporary global issues using a multi-disciplinary approach.

- 3) Articulate in writing a critical perspective on contemporary global issues using evidence as support.

This course contains in-person lectures, online videos, in-class assignments, writing assignments, problem sets and exams designed to align with these baccalaureate core learning outcomes (BCLO) and to assess student success in achieving these goals.

- BCLO 1 is assessed through in-class activities and lectures that requires students to observe the world around them and analyze issues relating to environmental economics and policy from local, regional, national and global scales.
- BCLO 2 is assessed through the examination of real-world environmental issues in lectures and supplementary videos, assigned readings, and problem sets. The course's focus is on developing an economic lens to view environmental problems, but all issues covered in this course are multi-disciplinary in nature.
- BCLO 3 is assessed by one (1) writing assignment, 1250 words in length and requiring citations of supporting evidence, on contemporary environmental policy.

## Evaluation of Student Performance

Your performance in this course will be evaluated as follows:

Assignment	Percentage of Final Grade
End-of-Week Quizzes (4 - 6)	5
In-class Assignments & Canvas Discussion Boards (7 - 9)	10
Writing Assignment	10
Problem sets (5)	20
Midterm Exam	25
Final Exam	30
<b>Total</b>	<b>100</b>

The following scale will be used in assigning final grades:

Grade	Percent Range	Grade	Percent Range
A	93-100	C	73-76
A-	90-92	C-	70-72
B+	87-89	D+	67-69
B	83-86	D	63-66
B-	80-82	D-	60-62
C+	77-79	F	Below 60

## Learning Resources

### Required Text:

***Markets and the Environment, Second Edition*** (2016)

Authors: Nathaniel Keohane and Sheila Olmstead (Island Press, Washington, DC).

This book is available electronically free of charge through the OSU library. You will need to use your ONID login to access the book [here](#). If you prefer a physical copy of the book, it is available for under \$40 at the [OSU Beaver Store website](#) or [Amazon](#).



### Other Resources:

***Environmental Economics*** (5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, or 8<sup>th</sup> Editions)

Authors: Barry C. Field and Martha K. Field (McGraw Hill, New York)

This book is a good supplementary resource for learning the material covered in this course. Additional course content is available via Canvas. The course Canvas site contains the syllabus, lecture notes, additional videos and readings, assignments and quizzes.

**Please note:** Assigned readings are essential to your success in this course.

## Communication

Please post all questions about assignments, readings, or lectures in the Canvas Q&A Discussion Forums. Posts there may address questions that more than one of you may have so please make use of this resource so all may benefit from the questions and answers provided. I encourage you to answer questions posted by classmates if you can. I will monitor this board each weekday afternoon and respond to any unanswered questions or provide any needed clarifications. Question posted after 5 pm PST or on weekends will be answered on the next business day.

If you would like to schedule time for extra help, have questions about grading or other matters of a personal nature, please contact me directly via email (preferred) or the Canvas Inbox starting the subject with "AEC352: " This will help me prioritize the many emails I receive each day and ensure timely feedback to your inquiry. I am available via email during normal business hours M-F 9 am to 5 pm. You can expect same day responses to emails during those times and the next business day for emails outside of those times. I firmly believe timely feedback on assignments is important for your learning the material in this course. You can expect to receive feedback from us within 5-7 days of the due date of all assignments.

## Course Policies

**Use of Generative AI:** I view Generative AI platforms like ChatGPT or Bard as tools and not substitutes for creative input and thinking. In this class, you will develop strong analytical skills using real-world examples, which cannot be outsourced to generative AI tools. AI tools based on a large language model provide responses based on the vast amount of text in its database. While they can provide helpful information and may spur your thinking, they are not a reliable source and cannot provide citations or references to reliable data or evidence. ([For example, 2 NY](#)

[lawyers were sanctioned by the court for submitting fake cases in a legal brief that they wrote using ChatGPT!](#))

I expect that all of your submitted work (including quizzes, problem sets and writing assignments) is your own. **If you copy and paste text from any source, including Generative AI Tools, you must put it in quotation marks and cite it (See [How to Cite ChatGPT \(APA style\)](#)).** Please add a parenthetical explaining how you prompted the AI tool if you quote or otherwise use ideas from an AI tool. Remember that the OSU Student Conduct Code defines Academic Misconduct as “an act of deception in which a Student seeks to claim credit for the work or effort of another person, or uses unauthorized materials or fabricated information in any academic work or research.” You may not use the output of an AI tool and claim it as your own, for your own integrity and to develop your own skills.

**Guidelines for a Productive and Effective Classroom:** Students are expected to conduct themselves in the course in compliance with the university’s regulations regarding civility. Civility is an essential ingredient for academic discourse. All communications for this course should be conducted constructively, civilly, and respectfully. Differences in beliefs, opinions, and approaches are to be expected. In all you say and do for this course, be professional. Please bring any communications you believe to be in violation of this class policy to the attention of your instructor. Active interaction with peers and your instructor is essential to success in the delivery of this course, paying particular attention to the following:

- Be respectful of others and their opinions, valuing diversity in backgrounds, abilities, and experiences.
- Challenging the ideas held by others is an integral aspect of critical thinking and the academic process. A positive atmosphere of healthy debate is encouraged.

**Participation:** Students are expected to participate in lectures and all class discussions.

**Late Assignment Policy:** Any course assignment on Canvas (quiz, problem set, writing assignment) submitted after the due date and time is considered late. Each student has **two times** during the term where late work may be accepted under the following conditions:

- 1) Each student will have 2 late passes for the term that will allow an assignment turned in late to be graded at full credit, if and only if the late assignment is turned in **within 24 hours of the original due date and time**.
- 2) Any late assignments turned in more than 24 hours after the due date **will not be accepted for any credit**.
- 3) Any assignment turned in late after the 2 late passes have been used **will not be accepted for any credit**.

In other words, there is no partial credit offered for assignments in this course. It is either turned in on time, graded at full credit if late under the above conditions, or it is graded as a zero.

For in-class assignments, there is **not any alternative offered if missed**. Being in class and participating in the assignment is the only way to earn points.

**To ensure this policy is enforced fairly, the instructor or TA will reply to any request for special considerations with a copy of this late policy text.**

**Makeup Exams:** Makeup exams will be given only for missed exams where a discussion is had in advance between the student and instructor and the reason for missing the exam is deemed valid by the instructor. This determination is at the sole discretion of the instructor. For instance, travel plans or attending to personal matters are not likely to be deemed valid and a make-up exam will not be offered. Make up exams will not be given under any circumstances if student contacts the instructor after the exam has occurred regardless of the reason.

**Incompletes:** Incomplete (I) grades will be granted only in emergency cases (usually only for a death in the family, major illness or injury, or birth of your child), and if the student has turned in 80% of the points possible prior to the request. If you are having any difficulty that might prevent you completing the coursework, please do not wait until the end of the term.

**Turnitin:** Your instructor may ask you to submit one or more of your writings to Turnitin, a plagiarism prevention service. Your assignment content will be checked for potential plagiarism against Internet sources, academic journal articles, and the papers of other OSU students, for common or borrowed content. Turnitin generates a report that highlights any potentially unoriginal text in your paper. The report may be submitted directly to your instructor or your instructor may elect to have you submit initial drafts through Turnitin, and you will receive the report allowing you the opportunity to make adjustments and ensure that all source material has been properly cited. Papers you submit through Turnitin for this or any class will be added to the OSU Turnitin database and may be checked against other OSU paper submissions. You will retain all rights to your written work. For further information, visit [Academic Integrity for Students](#).

**Academic Calendar:** All students are subject to the registration and refund deadlines as stated in the Academic Calendar: <https://registrar.oregonstate.edu/osu-academic-calendar>

**Statement Regarding Students with Disabilities:** Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval please contact DAS immediately at 541-737-4098 or at <http://ds.oregonstate.edu>. DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

**Statement Regarding Religious Accommodation:** Oregon State University is required to provide reasonable accommodations for employee and student sincerely held religious beliefs. It is incumbent on the student making the request to make the faculty member aware of the request as soon as possible prior to the need for the accommodation. See the [Religious Accommodation Process for Students](#).

**Expectations for Student Conduct:** Student conduct is governed by the university's policies, as explained in the Student Conduct Code (<https://beav.es/codeofconduct>). Students are expected to conduct themselves in the course (e.g., on discussion boards, email postings) in compliance with the university's regulations regarding civility.

**Technical Assistance:** If you experience any errors or problems with any Canvas materials for this course, contact 24-7 Canvas Support through the Help link within Canvas. If you experience computer difficulties, need help downloading a browser or plug-in, or need assistance logging

into a course, contact the IS Service Desk for assistance. You can call (541) 737-8787 or visit the [IS Service Desk](#) online.

**Reach Out for Success:** University students encounter setbacks from time to time. If you encounter difficulties and need assistance, it's important to reach out. Consider discussing the situation with an instructor or academic advisor. Learn about resources that assist with wellness and academic success at [oregonstate.edu/ReachOut](http://oregonstate.edu/ReachOut). If you are in immediate crisis, please contact the Crisis Text Line by texting OREGON to 741-741 or call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255)

**Academic Integrity:** Integrity is a character-driven commitment to honesty, doing what is right, and guiding others to do what is right. Oregon State University Ecampus students and faculty have a responsibility to act with integrity in all our educational work, and that integrity enables this community of learners to interact in the spirit of trust, honesty, and fairness across the globe. Academic misconduct, or violations of academic integrity, can fall into seven broad areas, including but not limited to: cheating; plagiarism; falsification; assisting; tampering; multiple submissions of work; and unauthorized recording and use. It is important that you understand what student actions are defined as academic misconduct at Oregon State University. The OSU Libraries offer a [tutorial on academic misconduct](#), and you can also refer to the [OSU Student Code of Conduct](#) and [the Office of Student Conduct and Community Standard's website](#) for more information. More importantly, if you are unsure if something will violate our academic integrity policy, ask your professors, GTAs, academic advisors, or academic integrity officers.

**Lauren's Promise:** I will listen and believe you if someone is threatening you.

Lauren McCluskey, a 21-year-old honors student athlete, was murdered on October 22, 2018, by a man she briefly dated on the University of Utah Campus. We must all take actions to ensure this never happens again. Any form of sexual harassment or violence will not be excused or tolerated at Oregon State University. All individuals who are participating in university programs and activities have the right to do so fully, free from sexual discrimination, misconduct, and retaliation. The university prohibits sexual misconduct of any kind, including sexual harassment, intimate partner violence, sexual exploitation, and stalking. When such misconduct occurs, the university will take steps to stop, prevent recurrence, and remedy the impacts of such behavior. **If you feel you are in danger, call 911.**

All Oregon State University employees are considered "Responsible Employees" and must consult with the Office of Equal Opportunity and Access when they are **made aware or have reason to believe** that a violation of the Sexual Misconduct and Discrimination policy has occurred. However, the university makes several confidential offices available to those who have been affected by sexual misconduct or discrimination. The following offices do not report sexual assaults or other sexual misconduct or discrimination claims to other university offices, but can refer students and employees to resources and services both on campus and within the community: [Survivor Advocacy and Resource Center \(SARC\)](#), [Counseling and Psychological Services \(CAPS\)](#), [Student Health Services \(SHS\)](#), and the [University Ombuds](#).