



Economics of Environmental Issues (EC 332U) Syllabus

WEB

January 8, 2024 Version

Professor Randy Bluffstone, Department of Economics

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Office Hours: Weekly Wednesday 12:00 -1:00 p.m., Monday 7:00 – 8:00 pm, Tuesday 7:00 – 8:00 pm via Zoom and in person or via Zoom by appointment.

Please just send an email and we can meet.

Please see Canvas for the office hours Zoom link.

Students are actively encouraged to use office hours and make appointments to meet. Please come in to talk about any issues you would like to discuss.

Teaching Assistant Tania Tanni

Email: tanni@pdx.edu

Economics computer lab (URBN 411) is staffed during most hours M – F. All TAs can provide advice. Tania's hours TBA. Other meetings in person and via Zoom are available with Tania by appointment.

Affirmative Action

Portland State University supports equal opportunity for all, regardless of age, color, disability, marital status, national origin, race, religion or creed, sex or gender, sexual or gender identity, sexual orientation, veteran status, or any other basis in law.

Disability Resources at PSU

Students with accommodations approved through the Disability Resource Center are requested to contact the faculty member to discuss necessary accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval should contact the DRC immediately.

Academic Honesty

Academic honesty is expected and required of students enrolled in this course. Suspected academic dishonesty in this course will be handled according to the procedures set out in the Student Code of Conduct.

[Canvas](#): All documents will be transferred and assignments submitted via Canvas.

Introduction to the Course

Welcome to Economics of Environmental Issues! This in-person course deals with the interactions between nature and humans through their economic activities. It seeks to give students a non-technical - but highly substantive - introduction to the economics of environmental protection.

At least as important as understanding the economic way of thinking with regard to the environment is to try to understand the economic explanation for why "excessive" environmental degradation occurs and what excessive means. On an almost daily basis we impact nature in our roles as entrepreneurs, laborers, landowners and consumers, but why does environmental degradation occur at all as a result of economic activities? Is there an inevitable tradeoff between economic activity and environmental quality?

Using a variety of source materials written by environmental and resource economists, we will investigate the linkages between economic and environmental conditions in the contemporary world.

Prerequisites: None

Learning Objectives

- Students will understand fundamental economic models of the environment.
- Students develop an understanding of environmental issues and the mechanisms used to improve outcomes.
- Students will understand benefit-cost analysis applied to environmental issues.
- Students will apply economic thinking to environmental problems and policies.

Reading Materials

- *Economics of Natural Resources and Ecosystem Services* by Randy Bluffstone (draft chapters) to be published in 2024 or 2025 by Routledge Pub. All posted to Canvas.
- 6 additional articles. These readings are posted to Canvas.
- An optional resource is *Eco-nomics: What Everyone Should Know about Economics and the Environment* by Richard Stroup. This book is available in [E-book form](#) for a price of \$3.99. It offers a not-uncommon free market perspective on environmental protection.

Course Expectations – All assignments submitted should be typed.

- **Text Readings** – The textbook for the course is a draft textbook written by Prof. Bluffstone. There is no cost to you and it is available on Canvas. Please read and think about each assigned chapter. Please email Randy Bluffstone if you have any questions.
- **Canvas Articles** – Six supplementary articles add life and depth to the course (some are web links or Ted talks). Please read these articles as well.
- **Recorded Lectures** – Please watch and think about all recorded lectures.
- **Discussion Board** – Please respond to the weekly prompts on the discussion board, which address material for that week. Please also comment on at least one other student's response. ***Please be 100% respectful of others and others' views as you would be in an in-person course. Please do not use profanity in your posts or responses.***
- **Assignments** – There are five practice assignments during the course. Assignments are made up of 4 – 6 questions and are typically a mix of calculations and conceptual problems. Please upload these to Canvas by ***when they are due*** to receive full credit. ***Dates are given on the syllabus and on Canvas and are always due on a Wednesday by 11:59 pm (i.e., just before midnight).***
- **Weekly Quizzes** – Maximum of thirty-minute quizzes each week will cover readings, lectures and practice assignments assigned for the **previous** week. All quizzes should be completed by Friday of each week by 11:59 pm (i.e., just before midnight)
- **Environmental Economics Country Case Study** – You will have the chance to choose a country and overview their key environmental economic issues. Guidelines are posted to Canvas and milestones are on the syllabus and on Canvas.

Grading Structure

- Weekly 30 minute quizzes (10): 50%
- Discussion Board Participation: 10%
- Practice assignments (5):25%
- Environmental Economics Country Case: 15%
 - Choice of country and reason: 1%
 - Preliminary list of 10 information sources: 4%
 - Draft case study 6%
 - Final case study 4%

Criteria for Grading Weekly Quizzes

Percentage of Points Received	Criteria
100%	Complete correct answer, nothing missed; demonstrates in-depth, full understanding of the subject matter.
90 - 99%	Virtually complete, correct answer; something small missed; perhaps a calculation error; answer suggests less than complete understanding of the topic.
80 - 89%	Mostly complete and correct answer; significant, but still incomplete understanding of the subject addressed by the question.
70 - 79%	Partially correct, incomplete answer; Evidence of partial understanding of the topic.

The following grading scale is the ***strictest*** that will be used for determining final grades. Often, but not always, fewer points are required as the final course grade (not individual examinations) will be “curved.” Here please find one description of “[grading on a curve](#).”

Number of Points Received (out of 1000 possible)	Minimum Grade
96%	A
92%	A-
88%	B+
84%	B
80%	B-
76%	C+
72%	C
68%	C-
64%	D+
62%	D
60%	D-

Late Submissions of Work

In fairness to students who submit their work on time, for each day late a grade penalty of 25% will be assessed. Work that is submitted late (e.g. even ½ hour), but not a full day, will also be penalized 25%. Work that is 1 full day late is penalized 50%.

Course Outline

- All readings are posted to Canvas. Numbered articles refer to published articles listed on the last page of this syllabus. Virtually all are 12 - 25 pages. Chapters refer to the draft chapters by Randy Bluffstone. Topics covered are listed by week.

The material on this syllabus is also available on Canvas for each week of Winter 2024 quarter.

Week	Topics for the Week	Readings	Practice Assignments	Weekly Quizzes and Discussion Board	Case Study
Week 1 1/8-1/14	Fundamental environmental issues	Review syllabus and materials on Canvas. Article #0: Millennium Ecosystem Assessment (2005) - <i>Ecosystems and Human Well-being: Synthesis</i> (Read first 24 pages. Skim the rest as desired.)			
Week 1 (continued)	Microeconomic fundamentals	Chapter 2			
Week 2 1/14 -1/21	Estimating ecosystem service benefits	Chapter 3 Article #1: Krutilla (1967) – <i>Conservation Reconsidered</i>			
Week 2 (continued)	Planetary Health	Article #2a: Rockström et al. (2009) – <i>A Safe Operating Space for Humanity</i> and Article #2b: O'Neill et al. (2018) – <i>A Good Life for all within Planetary Boundaries</i> . Page count of two readings is 12 pages total.	Assignment 1 Due Complete by Wednesday January 17 11:59 pm for full credit	Discussion Board Week 1 Participation and Quiz 1 Due Complete by Friday January 19 11:59 pm for full credit	
Week 3 1/22-1/28	Climate change	Article #3: NOAA 2022 Global Climate Report (web link)			

Week	Topics for the Week	Readings	Practice Assignments	Weekly Quizzes and Discussion Board	Case Study
Week 3 (continued) 1/22-1/28	Climate Change International Policy	<p>Article #4a: UNFCCC (2015) - The Paris Agreement</p> <p>Article 4b: Sharm-El-Sheikh COP 27 Decisions. Review the Implementation Plan (web links)</p> <p>Dubai COP 28 agreements</p>		<p>Discussion Board Week 2 Participation and Quiz 2 Due</p> <p>Complete by Friday January 26 11:59 pm for full credit</p>	<p>Case Study</p> <p>Upload country choice and reason it interests you by Wednesday January 24 11:59 pm for full credit</p>
<u>Week 4</u> 1/29-2/4	Consumption	Chapter 4	<p>Assignment 2 due</p> <p>Complete by Wednesday January 31 11:59 pm for full credit</p> <p>NDC Registry</p>		
Week 4 (continued)	Consumption	<p>Article #5a: Arrow et al (2004) - <i>Are We Consuming Too Much?</i></p> <p>#5b: Daly et al. (2007) <i>Are We Consuming Too Much? For What?</i></p>		<p>Discussion Board Week 3 Participation and Quiz 3 Due</p> <p>Complete by Friday February 2 11:59 pm for full credit</p>	

Week	Topics for the Week	Readings	Practice Assignments	Weekly Quizzes and Discussion Board	Case Study
<u>Week 5</u> 2/5 – 2/11	Human population	Chapter 5 Article #6 Ted Talk by Hans Rosling Ted Talk on Should We be Worried about Growing Human Population? (web link)			
Week 5 (continued)	Sustainability	Chapter 6	Assignment 3 Due Complete by Wednesday February 7 11:59 pm for full credit	Discussion Board Week 4 Participation and Quiz 4 Due Complete by Friday February 9 11:59 pm for full credit	Case Study Upload preliminary bibliography of sources by Wednesday February 7 11:59 pm for full credit
<u>Week 6</u> 2/12 – 2/18	Why are environmental assets so difficult to manage?	Chapter 7			
Week 6 (continued)	Market failures, bad incentives and poor property rights	Chapter 8		Discussion Board Week 5 Participation and Quiz 5 Due Complete by Friday February 16 11:59 pm for full credit	

Week	Topics for the Week	Readings	Practice Assignments	Weekly Quizzes and Discussion Board	Case Study
<u>Week 7</u> 2/19 – 2/25	Collective action and environmental protection	Chapter 9			
Week 7 (continued)	Energy subsidies and economic planning gone wild	Chapter 11	Assignment 4 Due Complete by Wednesday February 21 11:59 pm for full credit	Discussion Board Week 6 Participation and Quiz 6 Due Complete by Friday February 23 11:59 pm for full credit	
<u>Week 8</u> 2/26 – 3/3	Social Institutions for Better Collective Action	Chapter 12			
Week 8 (continued)	Economics of Pollution Control	Chapter 13		Discussion Board Week 7 Participation and Quiz 7 Due Complete by Friday March 1 11:59 pm for full credit	Case Study Upload draft case study by Wednesday February 28 11:59 pm for full credit
<u>Week 9</u> 3/4 – 3/10	Green Pricing: Theory and Taxes on Measured Pollution	Chapter 14			

Week	Topics for the Week	Readings	Practice Assignments	Weekly Quizzes and Discussion Board	Case Study
Week 9 (continued)	Green Pricing: Carbon Taxes	Chapter 15	Assignment 5 Due Complete by Wednesday March 6 11:59 pm for full credit	Discussion Board Week 8 Participation and Quiz 8 Due Complete by Friday March 8 11:59 pm for full credit	
<u>Week 10</u> 3/11 – 3/17	Green Markets: Theory and US non-Carbon Experience	Chapter 16			
	Green Markets: International Climate Policy and Carbon Markets	Chapter 17		Discussion Board Week 9 Participation and Quiz 9 Due Complete by Friday March 15 11:59 pm for full credit	Case Study Upload final case study by Wednesday March 13 11:59 pm

Important Note: Please Complete Discussion Board Week 10 Participation and Weekly Quiz 10 by Friday March 22 11:59 pm for full credit

Bibliography

Article Number	Author	Bibliographic Reference
0	Numerous	Millennium Ecosystem Assessment, 2005. <i>Ecosystems and Human Well-being: Synthesis</i> . Island Press, Washington, DC.
2	John Krutilla	"Conservation Reconsidered," <i>American Economic Review</i> , Vol. 57 (4): 777-786. 1967.
2a	Johan Rockström, Will Steffen, Kevin Noone, Åsa Persson, F. Stuart Chapin, III , Eric F. Lambin , Timothy M. Lenton , Marten Scheffer, Carl Folke, Hans Joachim Schellnhuber, Björn Nykvist, Cynthia A. de Wit, Terry Hughes, Sander van der Leeuw, Henning Rodhe, Sverker Sörlin, Peter K. Snyder, Robert Costanza, Uno Svedin, Malin Falkenmark, Louise Karlberg, Robert W. Corell, Victoria J. Fabry, James Hansen, Brian Walker, Diana Liverman, Katherine Richardson, Paul Crutzen, Jonathan A. Foley	"A Safe Operating Space for Humanity." <i>Nature</i> , Vol. 461 (24): 472 - 475. 2009.
2b	Daniel W. O'Neill, Andrew L. Fanning, William F. Lamb and Julie K. Steinberger	"A Good Life for all within Planetary Boundaries." <i>Nature Sustainability</i> 1: 88 – 95. 2018.
3	National Oceanic and Atmospheric Administration 2020 Global Climate Report	NOAA 2021 Global Climate Report
4a	U.N. Framework Convention on Climate Change	The Paris Agreement
4b	U.N. Framework Convention on Climate Change	The Sharm-El-Sheikh COP 27 Implementation Plan
5a	Kenneth Arrow, Partha Dasgupta, Lawrence Goulder, Gretchen Daily, Paul Ehrlich, Geophrey Heal, Simon Levin, Karl-Göran Mäler, S. Schneider, David Starrett and B. Walker	"Are We Consuming Too Much?" <i>The Journal of Economic Perspectives</i> , Vol. 18, No. 3 (Summer, 2004), pp. 147-172
5b	Herman E. Daly, Brian Czech, David L. Trauger, William E. Rees, Mansi Grover, Tracy Dobson and Stephen Trombula	"Are We Consuming Too Much? For What?" <i>Conservation Biology</i> Volume 21, No. 5, 1359–1362
6	Hans Rosling	TED Talk " Religion and Babies "