## Environmental Economics (Econ 3545)

Fall 2021

Lecture Time: MWF 8:00am -		HLMS 199
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Office Hours: MW 9:00am – 1	10:00am Office:	ECON 309A
TA: Vijay Appasam	y Email:	Vijay.Appasamy@colorado.edu
Office Hours: Th $4:00 \text{pm} - 5:$	00pm Office:	Zoom Link

# 1 Course Information

Course Websites: https://canvas.colorado.edu/courses/77396

**Class Description:** Economics has been as central a cause of natural resource degradation has it has been the core of the solution to most environmental problems. No matter your academic major or eventual career path, learning to see the world through an economist's mindset will deepen your appreciation (and maybe sharpen your critique!) of economic tools and how they are applied to environmental issues. The first half of the course will be a study of fundamental economic principles like dealing with externalities, conducting cost-benefit analysis, and properly valuing and pricing the environment. We will then spend the latter half of the course applying these principles to real life scenarios like pollution, biodiversity loss, and climate change, among others.

**Textbook (not required):** Nick Hanley; Jason Shogren; Ben White, Introduction to Environmental Economics 3rd Edition ISBN: 9780192522399

**Prerequisites:** Requires prerequisite courses of ECON 2010 (Principles of Microeconomics) (minimum grade C-). requirements.

Course Objectives: By the end of the course you should be able to:

- Identify environmental problems, emphasizing the optimal role for public policy relative to a market inefficiency.
- Determine the economic information and tools required to address an environmental problem and how to apply them.
- Explain the building blocks and tools of environmental economics so that you can comprehend the research in environmental economic texts and articles and current policy.
- Concisely and effectively communicate environmental economics findings and recommendations in a way understandable to both policymakers and the general public.

## 2 Course Policies

## General policies

- No makeup homework assignments or exams will be given.
- If homework is turned in late, it will receive an additional 20% grade reduction each day it's late. Once I post the answers, homework will no longer be accepted.
- It is the student's responsibility to inform me of any accommodations needed two weeks before an exam.
- I will conduct all course communications in class and through your CU email. Please do not email me from your personal/non-university email as it may get sent to my spam folder. Please use email and not canvas mail.
- If you have a question after I have sent out an email to the class, please send me a separate email so that your question does not get buried in a long email chain (and DO NOT use "reply all"). I may not respond to any emails that can be answered by reading the syllabus.
- Please allow 24 hours for me to respond to emails (on weekdays), although I will usually reply much faster. However, I can not discuss grades over email per FERPA guidelines.
- Even though attendance is not required in general, you MUST attend the first class, or there is a chance that you will be administratively dropped, in order to make room for attending students on the waitlist.

## Grades

• Distribution: Below is the weight given to each of the assignments you are expected to complete:

Midterm	15%	Homework	15%	Participation	15%
Final Exam	20%	Quizzes	15%	Final Paper	20%

- **Curving:** Midterms *may* be curved individually, and a curve *may* be applied to the overall course grade to conform to departmental standards. The highest overall average the department allows is a B-.
- Letter Grade Cutoffs: Below is the letter grade you will receive for the final score given in the class:

### Assignments

- Homework: There will be 10 graded homework assignments throughout the semester, but your lowest homework score will be dropped. You are allowed to work on the homework assignments in groups (4 students per group max). Please turn in only one assignment per group, clearly marked with the names of all group members. The homework is an integral part of the course and will be extremely helpful for checking and improving your understanding of the material.
- Quizzes: There will be 6 quizzes throughout the semester, each covering roughly two modules. Your lowest quiz score will be dropped. Before each quiz there will be a review session led by the TA.
- **Participation:** Participation will consist of short summaries made for extra material that will be talked about throughout the course, such as academic papers, outside sites, and podcast episodes, among others. These will be submitted over canvas.
- **Paper:** There will be one individual written writing assignment. This assignment will be 5 pages in length (4 pages of content and 1 page of resources), double spaced, Times New Roman 12 point font, 1" margins. This writing assignment as well as preliminary one-page proposal will be submitted through Canvas.

The paper should relate to an environmental policy issue and must answer: How can economics inform public policy related to this issue? This is a document that could be handed to policymakers that educates them about an issue and argues for a policy position.

There will be a one on one meeting with the professor during the course. Students must submit a one-page proposal before the meeting. This proposal will be worth some portion of your paper grade. If you do not submit a proposal or are significantly unprepared for the meeting, you will lose these points.

The evaluation of the assignment will be based in part on the following criteria:

- 1. The ability to convey an argument clearly and coherently.
- 2. The ability to use and synthesize the course material.
- 3. The ability to acquire and apply information from appropriate sources.
- 4. Competence in standard written English (including proper use of syntax, grammar, punctuation and spelling as well as use of appropriate vocabulary, formatting, and references).

Plagiarism will not be tolerated. Your paper will be submitted to Turnitin.com to check for plagiarism. Even a low amount of plagiarism will result in you seeing your assignment grade significantly lowered. If you have a significant amount of plagiarism, you will receive a zero for the course and your name will be submitted to the University Honor Council for review, which could result in heavy punishment. Plagiarism is defined as the use of another's ideas or words without appropriate acknowledgment. Examples of plagiarism include: failing to use quotation marks when directly quoting from a source; failing to document distinctive ideas from a source; fabricating or inventing sources; and copying information from computer-based sources, i.e., the Internet.

• Attendance: Attendance is not mandatory, but strongly recommended.

#### Exams

- Midterms: Midterms will be part multiple choice and part short answer question.
- Final Exam: The final exam will be cumulative, and it is tentatively scheduled as indicated below.

#### Cheating

If you are caught cheating in any fashion on any assignment, you will be given an F for the assignment, and your case will be reported to the Honor Code Council for review.

## 3 University Policies

- CLASSROOM BEHAVIOR: Both students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote or online. 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 race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. For more information, see the policies on classroom behavior and the Student Conduct Conflict Resolution policies.
- ACCOMMODATION FOR DISABILITIES: If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the Disability Services website. Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition, see Temporary Medical Conditions on the Disability Services website.
- **PREFERRED STUDENT NAMES AND PRONOUNS:** CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.
- HONOR CODE: All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code academic integrity policy. Violations of the Honor Code may include, but are not limited to: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code (honor@colorado.edu); 303-492-5550). Students found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found on the Honor Code website.
- SEXUAL MISCONDUCT, DISCRIMINATION, HARASSMENT AND/OR RELATED RETALIA-TION: The University of Colorado Boulder (CU Boulder) is committed to fostering an inclusive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct (harassment, exploitation, and assault), intimate partner violence (dating or domestic violence), stalking, or protected-class discrimination or harassment by or against members of our community. Individuals who believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or email cureport@colorado.edu. Information about OIEC, university policies, reporting options, and the campus resources can be found on the OIEC website. Please know that faculty and graduate instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, dating and domestic violence, stalking, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about their rights, support resources, and reporting options.
- **RELIGIOUS HOLIDAYS:** 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 the campus policy regarding religious observances for full details.

# 4 REQUIREMENTS FOR COVID-19

As a matter of public health and safety due to the pandemic, all members of the CU Boulder community and all visitors to campus must follow university, department and building requirements and all public health orders in place to reduce the risk of spreading infectious disease. Students who fail to adhere to these requirements will be asked to leave class, and students who do not leave class when asked or who refuse to comply with these requirements will be referred to Student Conduct and Conflict Resolution. For more information, see the policy on classroom behavior and the Student Code of Conduct. If you require accommodation because a disability prevents you from fulfilling these safety measures, please follow the steps in the "Accommodation for Disabilities" statement on this syllabus.

As of Aug. 13, 2021, CU Boulder has returned to requiring masks in classrooms and laboratories regardless of vaccination status. This requirement is a temporary precaution during the delta surge to supplement CU Boulder's COVID-19 vaccine requirement. Exemptions include individuals who cannot medically tolerate a face covering, as well as those who are hearingimpaired or otherwise disabled or who are communicating with someone who is hearing-impaired or otherwise disabled and where the ability to see the mouth is essential to communication. If you qualify for a mask-related accommodation, please follow the steps in the "Accommodation for Disabilities" statement on this syllabus. In addition, vaccinated instructional faculty who are engaged in an indoor instructional activity and are separated by at least 6 feet from the nearest person are exempt from wearing masks if they so choose.

Students who have tested positive for COVID-19, have symptoms of COVID-19, or have had close contact with someone who has tested positive for or had symptoms of COVID-19 must stay home. In this class, if you are sick or quarantined, please contact me. You do not need to state the nature of illness.

# 5 Tentative Schedule

This schedule may be changed according to class progress.

Week	Dates	Content		
1	Aug 23-27	• Introduction: The Economy and the Environment		
2	Aug 30-Sep 3	<ul> <li>The Economic Approach</li> <li>Quiz 1, Friday, Sep 3</li> </ul>		
3	Sep 6 - Sep 10	<ul> <li>Benefits and Costs</li> <li>No class on Labor Day, Sep 6</li> </ul>		
4	Sep 13-17	• Valuing the Environment		
5	Sep 20-24	<ul> <li>Contingent Valuation</li> <li>Quiz 2, Monday, Sep 20</li> </ul>		
6	Sep 27 - Oct 1	• Sustainability		
7	Oct 4-8	<ul> <li>Catchup &amp; Midterm 1</li> <li>Quiz 3, Monday, Oct 4</li> <li>Paper Proposal, Wed, Oct 6</li> <li>Midterm 1, Fri, Oct 8</li> </ul>		
8	Oct 11-15	• Energy and Transition to Renewables		
9	Oct 18-22	<ul> <li>Common Pool Resources</li> <li>Quiz 4, Friday, Oct 22</li> </ul>		
10	Oct 25 - 29	• Biodiversity Loss		
11	Nov 1-5	<ul> <li>Pollution Control 1: Stationary Source</li> <li>Quiz 5, Friday, Nov 5</li> </ul>		
12	Nov 8-12	Pollution Control 2: Mobile Source		
13	Nov 15-19	<ul> <li>Climate Change</li> <li>Quiz 6, Friday, Nov 19</li> </ul>		
	Nov 22-26	• Fall Break and Thanksgiving, No Class		
14	Nov 29-Dec 3	• Extra Topics		
15	Dec 6-Dec 8	<ul> <li>Final review</li> <li>Final Paper, Monday, Dec 6</li> </ul>		
	Dec 11	• Final Exam: Mon, Dec 13 7:30pm – 10:00pm (PRELIMINARY)		