

University of Colorado - Department of Economics
Environmental Economics
Econ 3545 - 001
Fall 2023

Instructor: Alexander Cauley, PhD (alexander.cauley@colorado.edu)

Office: ECON O4A

Class Time: Monday, Wednesday, and Friday from 1:25 PM - 2:15 PM in CLRE 207

Office Hours: Monday and Friday from 2:30 PM - 3:30 PM and by appointment.

Class URL: <https://canvas.colorado.edu/courses/97350>

Note: Please direct all emails to my CU email address instead of using Canvas messaging.

Prerequisites: Principles of Microeconomics (ECON 2010) with a minimum grade of a C-. Basic algebra and graphing skills are assumed. This course is for non-econ majors. If you are an economics major and you want this course to be counted towards your degree progress, please seek approval from your advisor and myself. This course does count toward an economics minor.

Textbook (highly recommended): *Environmental and Natural Resource Economics, a Contemporary Approach* (5th edition) by Jonathan Harris and Brian Roach. There is a copy of textbook on reserve in Norlin Library. You may check it out for 24 hours.

Teaching Assistant (TA): Zhang, Ben (benjamin.zhang@colorado.edu)

TA Office: ECON 206A

TA Office Hours: Tuesday and Thursday from 12:00 PM – 1:00 PM and by appointment.

Course Description: This course introduces fundamental concepts in environmental economics. Environmental economics broadly relates to the application of economic principles to investigate issues relating to the use and preservation of environmental amenities such as clean air and water and ecosystem services. To this end, in this course we will learn the methods of economic analysis used to address environmental issues and inform the design of public policy towards the environment. The first part of this course delves into relevant economic principles, including the theory of externalities, environmental valuations, and cost-benefit analysis. Based on these tools, in the second part of the course we will analyze real-world environmental issues, including climate change, biodiversity loss, and pollution, among others. Throughout the class, various (sub)disciplines—especially ecological economics—will be integrated into the lessons to offer an alternative (or at times complementary) perspective to mainstream economic analysis. The aim is to expand the understanding of economics as it relates to the environment (and vice versa) and to equip students with a deeper critical thinking skill set and comprehension of the issues. Ultimately, this course will provide you with a better basis with which to analyze environmental economic issues and evaluate the efficiency of environmental policies.

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

1. Identify environmental problems and their consequences using empirical evidence and theory.
2. Understand the economic drivers behind environmental issues and conceptualize public policies, and different solutions, that address the issues.
3. Comprehend research, media analysis, and policies concerning environmental economics.
4. Analyze environmental issues from both an environmental economic and an ecological economic perspective, grasping the different solutions, methodologies, and ethical considerations each perspective brings to the table.
5. Develop and effectively communicate environmental policy in a manner that is understandable to policymakers and the general public.

Lectures: Partial attendance for the first three classes is mandatory or you will be administratively dropped from the class to make room for attending students on the waitlist. While attendance will not be taken for the other days, it is strongly suggested that you attend all classes. You are responsible for all information covered in class lectures. If you miss a class, you should be able to get notes from one of your classmates. Throughout the semester, I will randomly assign in-class worksheets which you will complete in groups or individually. These worksheets will not be graded for accuracy, and you will receive extra credit toward an upcoming examination for completing them.

Grading: Your course grade will consist of two midterm exams, a cumulative final exam, homework assignments, and article analysis. Each portion of your grade will be weighted as follows:

Midterm 1	15% or 25% *
Midterm 2	15% or 25% *
Final exam	30%
Homework assignments	20%
Article analysis	10%

*Assignment of weights for midterm 1 and midterm 2 will depend on your midterm scores. The midterm with your lowest score will be weighted 15% and the midterm with your highest score will be weighted 25%.

Examinations: 60% of your examinations will be multiple choice and concept-matching. The remainder 40% will be short answers. All exams will take place in our regular classroom. There will be no make-ups for unexcused missed exams. If you are planning on leaving town, do not schedule your trip on an exam date. The final exam is cumulative – this means that you will be tested on the material from the entire semester. The dates for the examinations are as follows:

Midterm 1	Friday – Oct 6 th
Midterm 2	Wednesday – Nov 15 th
Final exam	Tuesday – Dec 19 th from 4:30 PM – 7:00 PM

Homework Assignments: Homework must be submitted in class (CLRE 207) during the day it is due. I will announce in class and on Canvas when homework assignments are posted. You will be given one week to complete the assignment from the date when it is posted. If you submit your homework late, there will be a penalty to your grade.

Late assignments and associated penalties:

One class late	20% deduction of your assignment's grade
Two classes late	50% ...
Three or more classes late	95% ...

To avoid penalizing students during the learning phase such as completing homework, homework assignments will be graded on completion. However, please approach these assignments seriously as they play a crucial role in your learning and help you prepare for upcoming examinations. Solutions to the homework assignments will be made available on Canvas for you to review and check your work.

Article Analysis: For this assignment, please find a news article on a topic that you find interesting and that you can directly relate back to environmental economics.¹ You will write at least two paragraphs, the first summarizing the article and explaining why it is relevant, and the second analyzing the article and its claims, and relating it back to concepts from environmental economics and proposing a sound public policy or other

¹ In this context, environmental economics is inclusive of ecological economics.

alternative (and reasonable) solution. You will be graded on how relevant the article you choose is, the quality of your writing, how well you relate the article back to environmental economics, and how well you use evidence and economic principles to support your policy recommendation. Please do not forget to provide a proper citation for your news article. Plagiarism will not be tolerated: see “Honor Code” provision below for further information. You are welcome to submit your article analysis any time before December 13th.

Grading Scale:

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
94-100	90-93	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	≤ 59

Note: The embedded links below are accessible via the electronic version of the syllabus uploaded on Canvas.

Classroom Behavior

Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure 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 [classroom behavior policy](#), the [Student Code of Conduct](#), and the [Office of Institutional Equity and Compliance](#).

Requirements for Infectious Diseases

Members of the CU Boulder community and visitors to campus must follow university, department, and building health and safety requirements and all public health orders to reduce the risk of spreading infectious diseases.

The CU Boulder campus is currently mask optional. However, if masks are again required in classrooms, students who fail to adhere to masking requirements will be asked to leave class. Students who do not leave class when asked or who refuse to comply with these requirements will be referred to Student Conduct & Conflict Resolution. Students who require accommodation because a disability prevents them from fulfilling safety measures related to infectious disease will be asked to follow the steps in the “Accommodation for Disabilities” statement on this syllabus.

For those who feel ill and think you might have COVID-19 or if you have tested positive for COVID-19, please stay home and follow the [further guidance of the Public Health Office](#). For those who have been in close contact with someone who has COVID-19 but do not have any symptoms and have not tested positive for COVID-19, you do not need to stay home.

Accommodation for Disabilities, Temporary Medical Conditions, and Medical Isolation

[Disability Services](#) determines accommodations based on documented disabilities in the academic environment. If you qualify for accommodations because of a disability, submit your accommodation letter from Disability Services to your faculty member in a timely manner so your needs can be addressed. Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance.

If you have a temporary medical condition or required medical isolation for which you require accommodation, please contact me and we will brainstorm some possible solutions (e.g. making up missed work, extra space to store crutches, etc.).

Also 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](#). 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 Student Conduct & Conflict Resolution: honor@colorado.edu, 303-492-5550. Students found responsible for violating the [Honor Code](#) will be assigned resolution outcomes from the Student Conduct & Conflict Resolution as well as be subject to academic sanctions from the faculty member. Visit [Honor Code](#) for more information on the academic integrity policy.

Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation

CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. University policy prohibits [protected-class](#) discrimination and harassment, sexual misconduct (harassment, exploitation, and assault), intimate partner violence (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. These behaviors harm individuals and our community. The Office of Institutional Equity and Compliance (OIEC) addresses these concerns, and individuals who believe they have been subjected to misconduct can contact OIEC at 303-492-2127 or email cureport@colorado.edu. Information about university policies, [reporting options](#), and support resources can be found on the [OIEC website](#).

Please know that faculty and graduate instructors have a responsibility to inform OIEC when they are made aware of incidents related to these policies regardless of when or where something occurred. This is to ensure that individuals impacted receive an outreach from OIEC about their options for addressing a concern and the support resources available. To learn more about reporting and support resources for a variety of issues, visit [Don't Ignore It](#).

Religious Observance Policy

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. If you have a conflict, please contact me at the beginning of the term so that we can make proper arrangements.

See the [campus policy regarding religious observances](#) for full details.

Mental Health and Wellness

The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health or substance use concerns that are impacting academic or daily life, please contact [Counseling and Psychiatric Services \(CAPS\)](#) located in C4C or call (303) 492-2277, 24/7.

Free and unlimited telehealth is also available through [Academic Live Care](#). The Academic Live Care site also provides information about additional wellness services on campus that are available to students.

The Economics Department Tutoring

Free drop-in tutoring from the department: <https://www.colorado.edu/economics/node/513/attachment>.