



# University of Colorado Boulder

## ENVIRONMENTAL ECONOMICS

### ECON 3545 SYLLABUS, SUMMER 2020

---

**Instructor:** Payne Hennigan, PhD Candidate

**Email:** Christian.hennigan@colorado.edu

**Online Office Hours:** Monday, Wednesday, Friday 11 am -12 pm using Canvas Chat or Zoom

**Term Start:** June 1<sup>st</sup>, 2020

**Term End:** July 24<sup>th</sup>, 2020

#### COURSE WEBSITE

Canvas is our class website:

- Login using your University of Colorado Boulder identikey and password  
<https://canvas.colorado.edu/>
- Under Course List, click "ECON 3545: Environmental Economics"
- Note: all email correspondence will be through your CU Boulder email address.
  - Do not use the Canvas email or messages, it is not checked.

#### COURSE DESCRIPTION

Economics has been as central a cause of natural resource degradation as 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.

#### COURSE OBJECTIVES

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

1. Identify environmental problems, emphasizing the optimal role for public policy relative to a market inefficiency.
2. Determine the economic information and tools required to address an environmental problem and how to apply them.
3. 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.
4. Concisely and effectively communicate environmental economics findings and recommendations in a way understandable to both policymakers and the general public.

#### COURSE PREREQUISITES

Requires prerequisite courses of ECON 2010 (Principles of Microeconomics) (minimum grade C-).

#### REQUIRED COURSE MATERIALS

**Textbook (required):** Nick Hanley; Jason Shogren; Ben White, Introduction to Environmental Economics 3rd Edition ISBN: 9780192522399

**Course Website:** <https://canvas.colorado.edu/> (Canvas) Grades and any further additional readings will be posted on Canvas. Please check Canvas frequently for any relevant notifications/changes that may occur throughout the course.

#### SUPPLEMENTAL MATERIAL

Journal articles that will be provided by the instructor in the Canvas System, by links to websites or via the CU Library.

#### INSTRUCTIONAL METHODOLOGY AND DELIVERY

This course is delivered via distance education format using the CU Canvas system. This format will use a combination of readings, online discussion, and other web-based resources. You will interact with the instructor and other students using the communication functions provided by Canvas. You will submit assignments in accordance with the course outline using Canvas.

#### COURSE PRESENTATION AND PROCEDURES

There will be 16 modules corresponding to the 8 weeks of the course (2 modules per week). You should proceed through two modules per week, which will be comprised of readings from the course texts, supplemental class notes, graded discussion questions, homeworks and quizzes, exams, and various outside sources of information such as additional readings and video content, among other content.

#### COURSE OUTLINE

Review the separate weekly class schedule found on Canvas under "Syllabus" link

#### CLASS PARTICIPATION

This course is designed to engage you through class discussions on the topics covered in the course materials. It is important that you participate in class discussions to facilitate learning by other students and gain exposure to different viewpoints of other students in the class. It is therefore necessary to participate throughout the week in the discussion questions, not wait until the last minute to post on discussion topics.

#### EVALUATION AND GRADING

Course grades will be determined by the completion of assignments, exams, and discussions, as shown below:

Assignment	Points per Assignment	Number	GRADE POINTS (includes drops)	GRADE PERCENTAGE
Paper	200	1	200	20%
Discussions (post + response)*	20	9*	140	14%
Exercises*	20	10*	160	16%
Quizzes*	20	7*	100	10%
Proctored Midterm Exam	150	1	150	15%
Proctored Cumulative Final Exam	250	1	250	25%
TOTAL			= 1000	= <b>100%</b>

Keep a copy of all work created for the course, including work submitted through Canvas.

\*The lowest two grades of these assignments will be dropped. See below.

#### COURSE GRADING CRITERIA

Grade	Percentage Grade	Equivalent Points	Indicates
<b>A</b>	93-100	930 – 1000	Excellent
<b>A-</b>	90-92.99	900 – 929	
<b>B+</b>	87-89.99	870 – 899	
<b>B</b>	83-86.99	830 – 869	Above Average
<b>B-</b>	80-82.99	800 – 829	
<b>C+</b>	77-79.99	770 – 799	
<b>C</b>	73-77.99	730 – 769	Average
<b>C-</b>	70-72.99	700 – 729	
<b>D+</b>	67-69.99	670 – 699	
<b>D</b>	63-67.99	630 – 669	Below Average
<b>D-</b>	60-62.99	600 – 629	
<b>F</b>	0-59	600 or lower	Failure

There is +/- grading in this class.

## ASSIGNMENTS

**Paper** (200 POINTS) – There will be one individual written writing assignment. This assignment will be 3 pages in length (2 pages of content and 1 page of resources), single 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:

- a) The ability to convey an argument clearly and coherently.
  - b) The ability to use and synthesize the course material.
  - c) The ability to acquire and apply information from appropriate sources.
  - d) 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. *For more information, please use the link provided on Canvas.*

**Discussion postings** (160 POINTS) - There will be a 20-point discussion posting associated with most modules.

- The discussion will occur asynchronously; I will post a discussion question and you will respond to the questions at your convenience prior to the due date. Discussions are open book and open note and will be submitted through Canvas. See the class schedule for due dates of posts and comments.
- Your two lowest discussion posting grades will be dropped from your final grade calculation.

**Exercises** (140 POINTS) - There will be a 20-point exercise associated with most modules.

- Exercises will consist of longer, quantitative questions where you will complete questions while showing your work. Problem sets will be accessed through Canvas. Though some assignments will be done completely through Canvas, for others you may have to scan your completed problem set in order to submit the problem set on Canvas.
- Your two lowest exercise grades will be dropped from your final grade calculation.

**Quizzes** (100 POINTS) –There will be quizzes associated with most modules each worth 20 points. The format of the quizzes will be multiple choice, calculations, and short answers and will be open book and open notes. Your two lowest quiz grades are dropped from your final grade calculation. Quizzes will be submitted through Canvas.

**Exams** (400 POINTS) – There will be two (2) exams. The proctored midterm exam is worth 150 points and the proctored cumulative final exam is worth 250 points. The format of the exam will be multiple choice and calculations and will be closed book. The exams are completed in an online proctored setting.

**This course requires proctored examinations.**

The Department of Economics at the University of Colorado Boulder requires students to use the online proctoring tool, Proctorio, for their proctored exams. Proctorio allows students to complete an assessment at a remote location, such as their home, while helping to ensure the integrity of the exam. There is no cost to use this tool.

- Please review [Proctorio Minimum System Requirements](#) to ensure you have the correct hardware and software to use this tool.
- Note that you are required to have a computer with a functioning webcam and microphone or have access to a computer with a functioning webcam microphone to complete your exams.

See Canvas for detailed information about proctoring. If you are in a rural area or on a military base, you may need to be approved to use a person as a proctor and information is provided on Canvas for this approval process.

Please see Canvas for detailed information about proctoring, including the contact information for Proctorio.

**COMMUNICATION**

I want to help you! Do not hesitate to contact me about anything.

**E-mail**

Instructor [Christian.hennigan@colorado.edu](mailto:Christian.hennigan@colorado.edu)

- My policy is to respond to email within 12 hours. I try to always respond to email, but if I have not responded within that 12 hour window please send me a follow-up email. Be sure to use your CU email address because sometimes gmail and yahoo email accounts are filtered into my spam folder. Please do not send me emails through Canvas.

**General Course Announcements**

- Announcements: Please check the “announcements” section on Canvas.

## TECHNOLOGY SUPPORT

You are required to have a working webcam and audio on your computer for the proctored examinations.

Canvas technical support.

- Computer specifications: Visit the official [Canvas Computer Specifications Page](#) for the latest list of recommended system requirements.
- Recommended browsers: Visit the [Supported Browsers Page](#) for the detailed list of internet browsers in Windows, MacOS, iOS and Android.
- If you are experiencing issues with Canvas please contact:
  - CU Boulder's Help desk at 303-735-4357 (5-HELP) or [help@colorado.edu](mailto:help@colorado.edu). 5-Help will answer your call: Monday through Friday from 7:30 a.m. to 7:00 p.m., Saturday and Sunday from noon to 6:00 p.m., Closed during [University Holidays](#)
  - On your computer, click the “help” (?) icon on the left side of Canvas, once logged in
  - Within the Canvas App, you can search the Canvas support guides, Report a Problem or chat with Canvas Support 24 hours a day, 7 days a week.

Connect tech support: <http://mpss.mhhe.com/> or <http://bit.ly/StudentRegistration>

## COURSE POLICIES.

**Course Withdrawal Policy:** Any student who wishes to withdraw from the course must submit a request directly to [Continuing Education](#). For complete information, please visit their website at <https://ce.colorado.edu/resources/topics/dates-and-deadlines-general-info/>

## POLICY ON DUE DATES

Each lecture you will complete a series of critical thinking questions that reflect material from the various delivery formats and required readings. It is your responsibility to turn in each assignment on the required date. Exercises or discussion postings turned in after the scheduled due date will be lowered to the next letter grade for each 12-hour period late. The exceptions that may be considered is due to sickness, university excused function, or circumstances beyond the students' control. The instructor reserves the sole right to determine what grounds constitutes a reasonable excuse for missing or submitting a late work assignment, the right to require the student to submit proper verification of such excuse.

## ETIQUETTE

All students should be aware that their behavior impacts other people, even online. I hope that we will all strive to develop a positive and supportive environment and will be courteous to fellow students and your instructor. Due to the nature of the online environment, there are some things to remember.

1. Always think before you write. In other words, without the use of nonverbals with your message, your message can be misinterpreted. So please think twice before you hit submit.
2. Keep it relevant. There are places to chat and post for fun everyday stuff. Do not stray from the discussion in the assigned questions.

3. Never use all caps. This is the equivalent of yelling in the online world. It is not fun to read. Only use capital letters when appropriate.
4. Make sure that you are using appropriate grammar and structure. In other words, I don't want to see anyone writing "R U" instead of "are you". There are people in the class that may not understand this type of abbreviation, not to mention it does nothing to help expand your writing and vocabulary skills. Emoticons are fine as long as they are appropriate. A smile ☺ is welcome, anything offensive is not.
5. Treat people the same as you would face-to-face. In other words, it is easy to hide behind the computer. In some cases, it empowers people to treat others in ways they would not in person. Remember there is a person behind the name on your screen. Treat all with dignity and respect and you can expect that in return.
6. Respect the time of others. This class is going to require you to work in groups. Learn to respect the time of others in your group and your experience will be much better. Always remember that you are not the only person with a busy schedule, be flexible. Do not procrastinate! You may be one that works best with the pressures of the deadline looming on you, but others may not be that way. The same is true for the reverse. The key to a successful group is organization, communication and a willingness to do what it takes to get it done.

Website: <http://www.albion.com/netiquette/corerules.html>

*Compiled by Melissa Landin, Instructor, Dept. of Communication, Inver Hills Community College,*  
[mlandin@inverhills.edu](mailto:mlandin@inverhills.edu)

## CLASSROOM BEHAVIOR

Students and faculty each have responsibility for maintaining an appropriate learning environment. 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. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. For more information, see the policies on [classroom behavior](#) and the [Student Code of Conduct](#).

## 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](mailto:dsinfo@colorado.edu) for further assistance. If you have a temporary medical condition or injury, see [Temporary Medical Conditions](#) under the Students tab on the Disability Services website.

## 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 policy may include: 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](mailto:honor@colorado.edu)); 303-492-5550). Students who are 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 at the [Honor Code Office website](#).

#### SEXUAL MISCONDUCT, DISCRIMINATION, HARASSMENT AND/OR RELATED RETALIATION

The University of Colorado Boulder (CU Boulder) is committed to fostering a positive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct intimate partner abuse (including dating or domestic violence), stalking, protected-class discrimination or harassment by 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 [cureport@colorado.edu](mailto:cureport@colorado.edu). Information about the OIEC, university policies, [anonymous reporting](#), and the campus resources can be found on the [OIEC website](#).

Please know that faculty and instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about options for reporting and support resources.

#### 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. Because of the flexibility of timing of completion of assignments in this class, you must contact the instructor in at least two weeks in advance if you anticipate a religious holiday may impact your completion of coursework.

For more information on the religious holidays most commonly observed by CU Boulder students consult the [online interfaith calendar](#).

#### 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.

#### COURSE WITHDRAWAL POLICY

Any student who wishes to withdraw from the course must submit a request directly to [Continuing Education](#). For complete information, please visit their website at <https://ce.colorado.edu/resources/topics/dates-and-deadlines-general-info/>

#### ADDITIONAL SUPPORT SERVICES

A variety of instructional support services, such as writing center, guidance on personal or educational issues, tutoring questions and library resources are available to the students. For more information about their services, visit their websites linked under modules on Canvas.



*ECON 3545: Environmental Economics*

Module (start date)	Topic and Resources	Graded Assignments	Due Date by 11:59pm MST/MDT
1 (6/01)	<b>The Economy and the Environment</b>	Quiz module 1 Discussion posting module 1 Discussion comment module 1	Tuesday 6/02 Tuesday 6/02 Wednesday 6/03
2 (6/04)	<b>The Economic Approach, Property Rights and Externalities</b>	Quiz module 2 Exercise module 2	Friday 6/05 Sunday 6/07
3 (6/08)	<b>Benefits and Costs</b>	Discussion posting module 3 Exercise module 3 Discussion comment module 3	Tuesday 6/09 Wednesday 6/10 Wednesday 6/10
4 (6/11)	<b>Valuing the Environment</b>	Exercise module 4	Sunday 6/14
5 (6/15)	<b>Paper Proposal</b>	One-page proposal One on one meeting	Tuesday 6/16 Wed. & Thurs. 6/17-6/18
6 (6/18)	<b>Hedonic Pricing and Contingent Valuation</b>	Quiz module 6 Discussion posting module 6 Exercise module 6 Discussion comment module 6	Friday 6/19 Friday 6/19 Sunday 6/21 Sunday 6/22
7 (6/22)	<b>Efficiency and Sustainable Development</b>	Discussion posting module 7 Exercise module 7 Discussion comment module 7	Tuesday 6/23 Wednesday 6/24 Wednesday 6/24
8 (6/25)	You may take the PROCTORED midterm exam the day of your choosing Thursday through Sunday.	Proctored Midterm Exam	Thursday 6/25 - Sunday 6/28
9 (6/29)	<b>Energy-Transition to Renewables</b>	Quiz module 9 Exercise module 9	Tuesday 6/30 Wednesday 7/01
10 (7/02)	<b>Common Pool Resources</b>	Discussion posting module 10 Exercise module 10 Discussion comment module 10	Friday 7/03 Sunday 7/05 Sunday 7/05
11 (7/06)	<b>Biodiversity Loss</b>	Discussion posting module 11 Exercise module 11 Discussion comment module 11	Tuesday 7/07 Wednesday 7/08 Wednesday 7/08
12 (7/09)	<b>Pollution Control: Stationary Source Air Pollution</b>	Discussion posting module 12 Quiz module 12 Exercise module 12 Discussion comment module 12	Friday 7/10 Friday 7/10 Sunday 7/12 Sunday 7/12
13 (7/13)	<b>Written Paper Due</b>	Paper Module 13	Wednesday 7/15
14 (7/16)	<b>Pollution Control: Mobile Source Air Pollution</b>	Quiz module 14 Discussion posting module 14 Exercise module 14 Discussion comment module 14	Friday 7/17 Friday 7/17 Sunday 7/19 Sunday 7/19

15 (7/20)	<b>Climate Change</b>	Discussion posting module 15 Quiz module 15 Discussion comment module 15	Tuesday 7/21 Tuesday 7/21 Wednesday 7/22
16 (7/23)	You may take the PROCTORED cumulative final exam the day of your choosing Thursday through Sunday.	Proctored Final Exam	Thursday 7/23 – Sunday 7/26
<b>Environmental Economics, ECON 3545, Summer 2020, Payne, University of Colorado Boulder</b>			