

# Economics 373 – Environmental Economics

University of Arizona, Fall 2017

T and TH, 2-3:15pm, McClelland Hall Room 128

Instructor: Jackson Dorsey ([jacksondorsey@email.arizona.edu](mailto:jacksondorsey@email.arizona.edu))  
Office Hours: Tu 3:30-4:30pm McClelland Hall Room 401B and by appointment  
Teaching Assistant: Paul Fisher ([pauljfisher@email.arizona.edu](mailto:pauljfisher@email.arizona.edu))  
Office Hours: M 3-4pm McClelland Hall Room 401A (Grading questions, must email in advance)  
Class Website: <https://d2l.arizona.edu>

## Course Description

The goal of this course is to investigate environmental issues such as pollution, energy, and climate change using your economic training. We will begin very broadly, discussing economic concepts and how they relate to environmental topics in particular. After acquiring the necessary background, we will use the standard economic tools you've learned and apply them to general environmental issues such as optimal pollution, property rights and policy selection. Finally, we will delve into specific areas that are of high importance in the world today. These include electricity, renewable energy, transportation and climate policy.

## Prerequisites

You are expected to completed taken Economics 200 and be comfortable with the material covered in that course.

## Textbook

Highly Recommended: **The Economics of the Environment** by Peter Berck and Gloria Helfand<sup>1</sup>

Additional Reading: **Environmental Markets** by Terry L. Anderson and Gary D. Libecap

## Assessment

The assessment will be based on a combination of assignments, in-class activities, current events, quizzes and exams as follows:

- 15% – Current Event Assignments and In-Class Activities
- 15% – Quizzes
- 40% – Midterm Exams (20% each; Sept 28, Nov 2)
- 30% – Final Exam (Dec 12)
- Assignments must be turned in at the start of class on the date on which they are due. For current events assignments, you are to submit the assignment by the deadline via the dropbox on [D2L](#). **No unexcused late homework will be accepted.** For excused absences, homework must be turned in via email or in class by the following class period.
- Readings will be assigned at various times. You are expected to complete these readings and be prepared for an assessment – via quiz or discussion – of your understanding of the material in the following class.
- There will be quizzes on materials covered in the lecture, assignments, and/or assigned readings throughout the term. Excused absences for quizzes result in the corresponding quiz being dropped, with the total quiz grade being computed based on the remaining quizzes.
- Excused absences for the first two exams result in the total exam grade being determined by the average of the remaining two exams. Excused absences for the final result in a make-up exam. **Missing an exam or quiz without an approved excuse results in a grade of zero.**
- If you plan to have an excused absence,<sup>2</sup> please contact me via email prior to the start of class. In case of an emergency preventing you from doing so, please contact me within 24 hours of the missed class.

---

<sup>1</sup>This text covers the main concepts of the course well and therefore complements the first set of lectures.

<sup>2</sup>Legitimate reasons for absence include severe illness, family emergency, etc. Accommodations **will not** be made for such things as travel arrangements, so please plan any travel accordingly.

Table 1: Grading Scale

Letter Grade	Score
A	$\geq 90\%$
B	80%-89.9%
C	70%-79.9%
D	60%-69.9%
E	$\leq 59.9\%$

- If you would like a **re-grade** on a homework, quiz or exam, **please contact me via email within 2 days of the graded item being returned** and its score being posted on D2L. After two days, no re-grades will be considered. Please note that re-grades may result in your score decreasing.

## Office Hours

- For questions about course material visit my office hours or schedule an appointment to meet with me. My office hours will be after class on Tuesdays, so please let me know at the end of class if you would like meet for office hours. For questions about grading, you must email TA Simon Thaler to make an appointment for his office hours, Mondays 3-4pm. Please email Simon by 2pm if you would like to meet with him.

## Classroom Policy

- You are allowed to work together on assignments, but **you must write your answers in your own words**. Any students found to submit plagiarized work – either from the internet or fellow classmates – will be reported to the dean and receive a failing grade in the course.
- Absolutely no cheating is tolerated on quizzes or exams. **Any students found cheating on homework, quizzes or exams will be reported to the dean and receive a failing grade in the course**. Cheating includes, but is not limited to, copying somebody else's solutions, discussing a question with a classmate during an exam or quiz, referring to notes, textbook or smart phone during an exam or quiz. You are encouraged to work together on homework assignments.
- Please arrive before class starts and be ready to begin on time.
- During the lectures, please refrain from using anything which may distract your fellow classmates. This includes, but is not limited to, personal computers, cell phones, tablets, newspapers, etc. Per university policy, food and drink is not allowed in classrooms.
- Please turn off cell phones and any other devices that may generate noises when you enter the classroom.

## Attendance

Students are responsible for any missed quizzes or in-class activities. If you miss a graded assignment you must notify the instructor in advance and provide proper documentation.

## Students with Disabilities

If special accommodations are required, students are encouraged to contact the Disability Resource Center (DRC) office to begin the accommodation request process. Appropriate medical documentation will be required to determine eligibility to receive accommodations.

## Threatening Behavior

Threatening behavior is prohibited. Threatening behavior means any statement, communication, conduct, or gesture, including those in written form, directed toward any member of the University community that causes a reasonable apprehension of physical harm to a person or property.

## Non-discrimination Policy

The University of Arizona is committed to creating and maintaining an environment free of discrimination. In support of this commitment, the University prohibits discrimination, including harassment and retaliation, based on a protected classification, including race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, or genetic information. The University encourages anyone who believes he or she has been the subject of discrimination to report the matter immediately as described in the section below, Reporting Discrimination, Harassment, or Retaliation.

## Important Dates and Deadlines

Midterm 1 – Thursday, September 28, 2017

Midterm 2 – Thursday, November 2, 2017

Final – Tuesday, December 12, 2017 at **3:30 pm**

Last Day to Drop without a W – September 4, 2017

Last Day to Drop online with a W – October 29, 2017

Other important dates and deadlines may be found at

[http://registrar.arizona.edu/dates-and-deadlines/view-dates?field\\_display\\_term\\_value=154](http://registrar.arizona.edu/dates-and-deadlines/view-dates?field_display_term_value=154)<sup>3</sup>

## Lecture Outline (Subject to Revision)

### Section 1

- Principles of environmental economics (Chapters 1 & 2 pp. 1-32)<sup>4</sup>
- Market failures (Chapter 3 pp. 36-54)
- Consumer behavior and welfare (Ch. 4 & 5 pp. 58-107)
- Nonmarket valuation (Ch. 6 & 7 pp. 110-153)
- Pollution (Ch. 8, 9 & 10 pp. 161-246)

### Section 2

- Property rights (Ch. 11 pp. 250-269)
- Policy selection (Ch. 12 pp. 273-301)
- Discounting and cost-benefit analysis (Ch. 14 & 15 pp. 327-375)
- Natural resources (Ch. 16 & 17 pp. 379-440)

### Section 3

- Energy, electricity markets and renewable energy
- Transportation
- Climate policy

---

<sup>3</sup>Course policies are subject to minor changes at the discretion of the instructor.

<sup>4</sup>Chapters and page numbers correspond to Berck and Helfand