### Economics 373 – Environmental Economics

University of Arizona, Winter 2015 M-F, 9-11:50am, Modern Languages 410

Instructor: Anatolii Kokoza (kokoza@email.arizona.edu)

Office Hours: M-F 8-9am Modern Languages 410 and by appointment

Class Website: https://blackboard.eller.arizona.edu and 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

Required: The Economics of the Environment by Peter Berck and Gloria Helfand<sup>1</sup>
Highly Recommended: Economics of the Environment: Selected Readings by Robert Stavins

#### Assessment

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

- 15% Assignments and In-Class Activities
- 15% Quizzes
- 70% Exams (December 30, January 6, and January 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.
- Occasionally you will be assigned readings. 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, 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.
- 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 Blackboard. After two days, no re-grades will be considered. Naturally, re-grades may result in the score increasing or decreasing.

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

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

### Office Hours

• For questions about course material or grading, visit my office hours or schedule an appointment to meet with me.

# 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, but each person must write their answers in their own words.
- 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.

#### 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.

# Important Dates and Deadlines

Midterm 1 – December 30, 2015

Midterm 2 – January 6, 2015

Final – January 12, 2015

Other important dates and deadlines may be found at

http://registrar.arizona.edu/dates-and-deadlines/view-dates?field\_display\_term\_value=154

### Lecture Outline (Subject to Minor Revision)

- Principles of environmental economics (Chapters 1 & 2 pp. 1-32)<sup>3</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 and the optimal level thereof (Ch. 8, 9 & 10 pp. 161-246)
- 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)
- Energy, electricity markets and renewable energy
- Transportation
- Climate policy

<sup>&</sup>lt;sup>3</sup>Chapters and page numbers correspond to Berck and Helfand