

# Natural Resource Economics

ECON 3535-001

Spring 2017

**Time:** MWF, noon-1:00

**Classroom:** CLRE 207

**Instructor:** Cameron Duff

**Email:** cameron.duff@colorado.edu

**Office:** ECON 401 (north tower)

**Office hours:** Monday 2:30-4:30 and by appointment

**TA:** Samara Mendez

**Email:** samara.mendez@colorado.edu

**Office:** ECON 414 (south tower)

**Office hours:** Tuesday and Wednesday 11:00-noon

## Textbook

Environmental and Natural Resource Economics, 9th Edition

by Tietenberg and Lewis

ISBN-13: 978-0131392571.

I will assign readings from the book and from other sources posted on D2L. I will not ask you to own a physical copy of the book as long as you are able to get the readings done.

## Grades

Your final grade will have three components.

40% Final Exam

30% Midterm

30% Assignments

We will have two midterms, but I will only count the higher grade of the two.

## The Curve

I will curve each midterm separately to have a 72 average. After the final exam I will curve the final grades so that the median grade for the whole class becomes 82. Letter grades are assigned according to the department standard:

	above 93%, <b>A</b>	90-92.9, <b>A-</b>
87-89.9, <b>B+</b>	83-86.9, <b>B</b>	80-82.9, <b>B-</b>
77-79.9, <b>C+</b>	73-76.9, <b>C</b>	70-72.9, <b>C-</b>
67-69.9, <b>D+</b>	63-66.9, <b>D</b>	60-62.9, <b>D-</b>
	below 59.9, <b>F</b>	

The curve follows a strict formula, and I will not manually adjust grades for any reason.

## **Assignments**

Unit problems (20% total)- This class is organized into six units, and each will have its own math-based homework assignment covering material from the unit, graded for correctness. You may work in **groups** of up to 4 people or alone. Each group should submit a single **written or typed assignment** in class on the due date. I will drop the lowest of the six.

Two unit summaries (5% each)- **Each student** will choose two of the six units and write a detailed summary of them (somewhere around 800 words each). These will be graded for quality. Feel free to write the summaries as if you are explaining the material to someone with a similar background as you, but who is not in the class. **Submit on D2L.**

## **Extra Credit**

I will occasionally offer extra credit in the form of short iClicker quizzes in the beginning of class. These will be multiple choice, and based on the assigned readings. I may also use the iClicker system for occasional polls, so please bring the clicker to each class. There may also be extra credit resulting from in-class activities. All extra credit will be points added to the final.

## **Course Policies**

Attendance- I will not be taking attendance, so skip class at your own risk. Lecture slides will be posted on D2L, but I will not re-do the lecture in office hours if you miss a lecture.

Makeups- There will be no makeup tests, even if your reason for missing the test is very good. If a test conflicts with a mandatory CU event, we can arrange to have you take it before the test day, but not after. Similarly, unit problems and summaries are assigned well ahead of their due date, so late assignments will not receive credit.

Email- Feel free to email me with questions about the course. However, if you want to talk about why you got a particular grade, you must come to office hours. Please give me 24 hours to respond before sending another email.

Office Hours- If you have a schedule conflict during my office hours, you may email me to set up a different time to meet.

## **Course Description**

This course in natural resource economics will introduce students to the relationship between natural resources and the economic system. Classic allocation problems for renewable and nonrenewable resources will be examined. Understanding the incentives faced by users of natural resources will allow us to consider market failures and the important question of whether or not market interventions are justified on economic grounds. Because natural resources play a central role in many current energy and environmental policy debates, this course will also address institutions and policy issues related to climate change, ecosystem services, renewable energy, transportation, and sustainability.

## **Tentative Course Outline**

### Unit 1- Extraction of nonrenewable resources

Mineral products, Oil and gas, Groundwater

### Unit 2- Extraction of renewable resources

Fisheries, Forestry, Agriculture, Ecosystem services

### *Midterm 1*

### Unit 3- Property rights and institutions

Open access, Common property, The resource curse

### Unit 4- Natural resource policy

Market failures and natural resources, Regulating externalities, Property rights approaches

### *Midterm 2*

### Unit 5- Climate change

Costs of climate change, Climate policies, Technological innovation (focus on renewable power)

### Unit 6- Renewable energy

Power sector, Transportation sector

### *Final Exam- Week of May 8*

## **University Policies**

**DISABILITY POLICY**- If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs maybe addressed. For exam-specific accommodations, please notify me at least two weeks before the exam; for semester-long accommodations, please contact me as soon as possible in the semester.

**HONOR CODE**- All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both a failing grade in my class and non-academic sanctions (including but not limited to university probation, suspension, or expulsion).

**RELIGIOUS OBSERVANCE POLICY**- Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal 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 no later than the first week of the semester so we can make proper arrangements.

**CODE OF BEHAVIOR POLICY**- Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to such behavioral standards may be subject to discipline. Faculty has the professional responsibility to treat all students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which they and their students express opinions. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences or race, culture, religion, politics, sexual orientation, gender variance and nationalities. I will gladly honor your request to address you by an alternate name or gender pronoun.

**DISCRIMINATION AND HARASSMENT POLICY**- The University of Colorado, Boulder policy on Discrimination and Harassment can be found on the CU Boulder website. The university policy on Sexual Harassment and on Amorous Relationships applies to all students, staff and faculty. Any student, staff or faculty member who believes s/he has been the subject of discrimination or harassment based upon race, color, national origin, sex, age, disability, religion, sexual orientation, or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the ODH and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://www.colorado.edu/odh>.