

**ECON 3535 – Natural Resource Economics**  
**University of Colorado Boulder**  
**Fall 2022**

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**Office hours:** Fridays 9:00-11:00am in Ekeley S331 (Zoom option available on request)

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**Office hours:** Wednesdays 10:00-11:00am in ECON 313

**Lectures:** Mondays, Wednesdays, and Fridays 2:30pm-3:20pm Hellems Arts & Sciences Building 199

**Course Description:** This course in natural resource economics will introduce students to the interlinkages between natural resources and the economic system. Classic allocation problems for renewable and nonrenewable resources will be examined. This course will also consider the fundamental role of institutions in shaping natural resource use. 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 policy issues related to climate change, renewable energy, transportation, and sustainability.

**Course Organization:** This course will be a mix of lecture and discussion. The first half of the class will focus on the theory of natural resource economics. The second half of the class will focus on application to natural resource, energy and environmental policy.

**Textbook:** The OPTIONAL textbook for this course is:

Tom Tietenberg and Lynne Lewis, *Environmental and Natural Resource Economics* 9<sup>th</sup> ed (or 10<sup>th</sup> ed), Prentice Hall, 2011 (2014).

**Grading:**

Quizzes	5%
Assignments	30%
Midterm Exams	30%
Final Exam	35%

**Quizzes:** We will have short multiple-choice quizzes weekly on Wednesdays, starting in Week 2. They will be taken on Canvas and open from 9:00am to 11:59pm on the day of. The objective of these is to practice and refresh your quantitative skills in a low-pressure setting (quizzes are worth 5% combined).

**Assignments:** There will be an assignment at the end of each of Units 1-7. Assignments will include a mix of mathematical problems and short answer questions. For each student, we will drop the lowest grade among the seven assignments and count each of the others for 5% of the final grade. Because we are dropping the lowest grade, we will not accept late assignments without a valid reason (e.g., illness). We will provide more details when the first assignment is assigned.

**Exams:** The exams will include a mix of multiple-choice questions, mathematical problems, and short answer questions. Exams from the previous year are available on Canvas for practice. The Midterm Exams will be in class. For each student, the highest score among the two exams will count for 30%.

Because the lowest midterm grade is being dropped, we will only allow make-ups with a valid reason, and, if possible, make-up exams will have to be taken before the rest of the class. The Final Exam date will be announced as soon as it is available. It will be in person, during the final exam period, and will cover all units, but will more heavily weight Units 7 and 8.

### **Tentative Schedule**

The eight units for the class are listed below, along with recommended (but optional) readings from the textbook, with page numbers listed in roughly the order in which they will be covered in lecture. We expect to spend approximately 1-3 weeks on each unit, depending on the volume of the material and general class interest in the unit. For each unit, tentative topics are also listed.

1. Introduction and key concepts

Topics: market failures, discounting

Readings: 9<sup>th</sup> ed: pp. 16-27, 46-53. 10<sup>th</sup> ed: pp. 15-26, 46-53.

2. Non-renewable resources

Topics: minerals, oil and gas, groundwater

Readings: 9<sup>th</sup> ed and 10<sup>th</sup> ed: Ch. 6, 7, 9.

3. Renewable resources

Topics:



**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](mailto: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. Additional information regarding the Honor Code academic integrity policy can be found on the [Honor Code website](#).

**Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation**

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