

**Econ 3535 – Natural Resource Economics
Fall 2018**

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Office hours: Monday 3:00pm-5:00pm ECON 4C

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Lectures: Monday, Wednesday, Friday 2:00pm-2:50pm RAMY N1B23

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.

Textbooks: The textbook for this course is:

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

Grading:

Class Participation	5%
Assignments	30%
Midterm Exams	30%
Final Exam	35%

Class Participation: Students are expected to come to class and be prepared to discuss and answer questions regarding the lecture material. Discussion will comprise a significant component of our in-class time.

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, I will drop the lowest grade among the seven assignments and count each of the others for 5% of the final grade. Because I am dropping the lowest grade, I will not accept late assignments, except under extraordinary circumstances. I 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. I will provide example questions from past exams as study aides prior to the test date. The Midterm Exams will be in class (roughly, early October and mid-November). For each student, the highest score among the two will count for 30%. Because the lowest midterm grade is

being dropped, I will only allow make-ups in extraordinary circumstances, and they 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 cover all units, but will more heavily weight Units 7 and 8, which are not covered by the midterms.

Tentative Schedule

The eight units for the class are listed below, along with readings from the textbook, with page numbers listed in roughly the order in which they will be covered in lecture. I 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: 9th ed: pp. 16-27, 46-53. 10th ed: pp. 15-26, 46-53.

2. Non-renewable resources

Topics: minerals, oil and gas, groundwater

Readings: 9th ed and 10th ed: Ch. 6, 7, 9.

3. Renewable resources

Topics: fisheries, forestry, agriculture

Readings: 9th ed: pp. 320-331, 351-358, 293-306, 314-319, 262-278, 290-292.

10th ed: pp. 278-290, 309-315, 254-267, 274-277, 234-253.

Midterm 1 (Units 1-3)

4. Property rights and institutions

Topics: open access, common property, the Resource Curse

Readings: 9th ed: pp. 28-45, 551-563. 10th ed: pp. 27-45, 520-530.

5. Natural resource policy

Topics: regulating externalities, property rights approaches

Readings: 9th ed: pp. 359-396, 397-423, 249-261, 307-314, 332-350.

10th ed: pp. 359-377, 378-398, 247-251, 267-273, 290-308.

6. Climate change

Topics: costs of climate change, climate policies, technological innovation

Readings: 9th ed: pp. 424-430, 431-441. 10th ed: 399-406, 407-419.

Midterm 2 (Units 4-6)

7. Renewable energy

Topics: power sector, transportation sector

Readings: 9th ed: pp. 163-176, 442-470. 10th ed: pp. 160-169, 420-444.

8. Visions of the future

Topics: sustainability concepts, environmental Kuznets curve, future of growth

Readings: Papers, which will be posted on Canvas

Final Exam (Covers all Units)

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 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.

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](#).

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); 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 (including sexual assault, exploitation, harassment, dating or domestic violence, and stalking), discrimination, and 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. 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. Please email me as soon as possible if you anticipate a conflict between one of the exams and a religious observance.

See the [campus policy regarding religious observances](#) for full details.