

**Economics 4535**  
**Natural Resource Economics**  
**Spring 2014**

**Instructor:** Billy Mertens  
**Office:** ECON 12  
**E-mail:** [mertens@colorado.edu](mailto:mertens@colorado.edu)  
**Web:** <https://learn.colorado.edu/>  
**Office Hours:** Tues. 10:50-12:15, 3:20-5:05; Thurs. 10:50-12:15; Fridays by appointment.

**Course Description**

This course is designed to give you an introduction to the implications of natural resources as economic concepts. It presents theories of efficient utilization of natural resources and discusses issues related to current practices of use of resources. We will study natural resources used in the economy, the value of natural resources to society, and the allocation of renewable and non-renewable resources. We also discuss issues of sustainability, conservation, and preservation. The course extensively uses graphical analyses and some mathematical models.

**Policy on Cheating:**

If you are found to have violated the honor code (see below), by both myself and the honor code council, you will automatically fail the course!

**Prerequisites**

Intermediate Microeconomic Theory (Econ 3070) is the prerequisite for this course. It is **very** important that you fulfill the prerequisite **before** you take this course, and **still** understand the materials in the prerequisite. If you have any uncertainty as to whether you are under or over qualified to take the course, please talk to me ASAP.

**Readings**

The required book for this course is *Environmental Economics in Theory and Practice*, 2<sup>nd</sup> edition by Hanley, Shogren and White. Despite its title, the second half of the book does deal exclusively natural resources. The text is definitely intended for upper-level economics classes, and even for some graduate classes. We will skip around and omit some material that is too difficult. We also will not use the text alone. There will be additional assigned readings for nearly every topic we cover. These readings will be posted separately on the course website.

**Class format**

The first portion of the course will be a fairly basic introduction to the tools used in analyzing natural resource issues. We will then cover some general natural resource topics, and analysis techniques. Finally we turn to applied problems, and public policy issues. A more detailed course outline will be posted on the course website.

## Exams

There will be three cumulative exams and a cumulative final. Tests will consist of short-answer questions and some longer problems. The exams will all be cumulative, and the material does build on itself so it is important to understand all of the concepts as we go. **Exams will be given in class on the days listed. If you miss an exam with a valid excuse (e.g. a note from your doctor or Wardenburg), then the weight of your final will be increased. Undocumented illnesses do not count as valid excuses (as long as this is not in conflict with a University policy). Note that the exam dates below are not tentative – exams will be given in class on the days listed. NO EXAMS WILL BE DROPPED!!**

## Group-Led Article Discussions, Quizzes and Participation

We will review several relevant academic articles on different issues in natural resource economics. You will be required to understand these articles, and you will work in teams of 2-4 people to present one of the articles and lead the discussion for that article. When you are not in the discussion group you are still expected to have read the article and there will be a short quiz.

## A Note on Learning Systems and Assessments

This course is a little more traditional than many of the other classes I teach. Lecture is still the primary component, but group assignments and discussions are taking on a slightly larger role. Presentations may come back into the mix in the future. One of the most important changes from prior semesters is that all exams will be cumulative, and we will spend at least a little time reviewing for each exam. A little more detail on these systems is given below:

### Learning systems:

1. Lecturing: explaining difficult material not easily learned on your own with text, groups, etc.
2. Exams: exams should be learning tools as well as assessment tools! We will go over each exam in depth in class. Reviewing exams is one area where in-class discussion and explanation are most effective. Just reading answers on a key has been shown to be one of the worst ways to learn material. Therefore, exam reviews will be the one area of class where no notes, associated pictures or keys will be posted.
3. Group-Led-Discussions: we will cover both classic and more recent relevant articles from scholarly journals. Group-led-discussions are a mix of presentations and discussions. The more creative you can be with these, the more you will get out of them (and the better will be your grade). Finding interesting ways to engage the class in discussion of these articles will teach you critical skills that will not only solidify the current information, but will also aid in your learning for other classes. Presentation of material is one of the most instructive learning systems because:
  - a. *If you are going to inform others about what you know, you must first fully understand it yourselves. If you cannot explain a concept to others you may not fully understand it yourself.*
  - b. *You must research the topic, which may expose you to new ideas and sources of material. These sources could help in other coursework.*
  - c. *Most “real-world” careers require some form of presentation skills.*
  - d. *You will start to learn how to defend specific points of view in front of others. This is a critical professional skill!*
  - e. *Help you learn to organize information in a clear & concise way. Your audience will want to hear the most relevant information in the most clear and understandable fashion.*
  - f. *Help you learn presentation tools, formats and devices.*
  - g. *You learn how to practice presentations and fit information into a set time period (very important in business).*

- h. *You can discern what it takes to teach others.*
  - i. *It will teach you how to respond to critical questions in front of others.*
  - j. *Learn to analytically and reasonably justify a specific economic rationale.*
4. Group scholarship: we will work some practice problems in groups, which can help your understanding of the material whether you already understand it fairly well, or are struggling a bit. I will announce the days for these problems at least a week in advance. Unexcused absences from in-class problems will significantly lower your grade!
  5. Self-study: reading the articles and solving the review questions.

#### **Grading System I:**

Syllabus Quiz	1%
In-class Group Assignments	4%
Group-Led Discussion	10%
Quizzes	15%
Exam I (Tuesday, 2/18)	17%
Exam II (Tuesday, 3/18)	17%
Exam III (Tuesday, 4/22)	17%
Final Exam (Saturday, 5/3 @ 1:30pm)	20%

#### **Grading System II:**

Syllabus Quiz	1%
Group-Led Discussion	10%
Quizzes	15%
Exam I (Tuesday, 2/18)	18%
Exam II (Tuesday, 3/18)	18%
Exam III (Tuesday, 4/22)	18%
Final Exam (Saturday, 5/3 @ 1:30pm)	21%

If you have three or more final exams scheduled on the same day, you are entitled to arrange an alternative exam time for the **last** exam or exams scheduled on that day. To qualify for rescheduling final exam times, you must provide evidence that you have three or more exams on the same day, and arrangements must be made with your instructor no later than the end of the sixth week of the semester. **Given the final exam schedule, it is actually not possible that our exam could be the third of three on May 3<sup>rd</sup>.**

#### **Incompletes, Extra Credit, etc.:**

I adhere strictly to the University guidelines on Incompletes (“An I is given only when students, *beyond their control*, have been unable to complete course requirements. A substantial amount of work must have been *satisfactorily completed* before approval for such a grade is completed.”). Bad grades, unsatisfactory performance, too many credit hours, work conflicts, etc. are not reasons for an incomplete.

**I am adamant about giving each student an equal opportunity to perform well in the course, so there will be no extra credit opportunities that are not offered to the entire class. You should focus your efforts on learning the material and doing well on the exams.**

*Grading Scale:*

<b>Your Score</b>	<b>Grade</b>
92% to 100%	A
90% to 91%	A-
88% to 89%	B+
82% to 87%	B
80% to 81%	B-
78% to 79%	C+
72% to 77%	C
70% to 71%	C-
68% to 69%	D+
62% to 67%	D
60% to 61%	D-
Below 59.5%	F

**Additional Notes:**

*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](mailto:honor@colorado.edu); 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Additional information on the Honor Code can be found at <http://www.colorado.edu/policies/honor.html> and at <http://www.colorado.edu/academics/honorcode>

*Disabilities*

If you qualify for accommodations because of a disability, please submit a letter to the instructor from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Willard 322, or [www.Colorado.EDU/disabilityservices](http://www.Colorado.EDU/disabilityservices)

*Religious holidays*

A comprehensive calendar of the religious holidays most commonly observed by CU-Boulder students can be found at <http://www.interfaithcalendar.org/> Review this list and the class syllabus. After reviewing the syllabus, please see the instructor if you believe that you need an accommodation for religious reasons. The instructor should be notified within the first two weeks of classes. Campus policy regarding religious observances states that faculty must make *reasonable* accommodation for them and in so doing, be careful not to inhibit or penalize those students who are exercising their rights to religious observance. For more information see [http://www.colorado.edu/policies/fac\\_relig.html](http://www.colorado.edu/policies/fac_relig.html)

### *Code of Behavior*

Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which students express opinions. See policies at <http://www.colorado.edu/policies/classbehavior.html> and at [http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student\\_code](http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code)

### *Policy on Sexual Harassment*

The University of Colorado Policy on Sexual Harassment applies to all students, staff and faculty. Sexual harassment is unwelcome sexual attention. It can involve intimidation, threats, coercion, or promises or create an environment that is hostile or offensive. Harassment may occur between members of the same or opposite gender and between any combination of members in the campus community: students, faculty, staff, and administrators. Harassment can occur anywhere on campus, including the classroom, the workplace, or a residence hall. Any student, staff or faculty member who believes s/he has been sexually harassed should contact the Office of Sexual Harassment (OSH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the OSH and the campus resources available to assist individuals who believe they have been sexually harassed can be obtained at: <http://www.colorado.edu/sexualharassment/>

**Any University policies that are in conflict with my own policies will supersede my policy!**