

**ARE/EC 336: RESOURCE & ENVIRONMENTAL ECONOMICS**

Fall 2016: MW 1:30-2:45, 1206 Nelson Hall

Dr. Laura Taylor

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Office: 4223 Nelson Hall

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Office Hours: I am generally available MW before and after class. Walk-ins welcome any time, if I am available. It is best to email for an appointment though as my schedule gets quite full with meetings.

Email and we will set-up a time that works for you!

Prerequisites: EC/ARE 201 or EC205

Course Objectives: The goal is to stimulate critical thinking about today's environmental and natural resource problems and the public policies designed to improve them. This course attempts to broaden the student's approach to thinking about how people and society interact with their environment, with an emphasis on understanding how economic activity impacts the environment and role of markets and public policies in solving environmental challenges. Environmental issues are viewed as a multi-disciplinary subject that requires an understanding of both the physical sciences and the social sciences (specifically economics). As such, students will apply principles of economic analysis to consider the impact of human behavior on the environment and the design of effective policy solutions.

Required Text:

*Markets and the Environment*, 2007 by Nathaniel Keohane and Sheila Olmstead (Island Press, Washington, DC). Available via Amazon and many other sources.

Web Information: You will need to access Wolfware/Moodle regularly: <http://wolfware.ncsu.edu>

All assigned readings are posted on Moodle (other than those in the required textbook) and I will use Moodle for all class communication. I will announce reading assignments, describe what was covered in each class and the corresponding reading material, post general class announcements, and occasionally post materials that you should print and bring to class. You are responsible for the material I announce using Moodle's announcement feature. Check announcements before contacting me if you miss a class.

Evaluation: Grades are based on one of the following:

Two in-class exams .....	60%
Your lower-scoring in-class exam is worth 25%	
Your higher-scoring in-class exam is worth 35%	
Homeworks and Online Quizzes .....	5%
Final Exam (Cumulative).....	<u>35%</u>
	100%

I expect there to be approximately 6-8 online quizzes and one or two homework assignments. Quizzes will generally be available on Moodle after each section of the course, starting with Section 2 and ending with Section 10. These will be timed quizzes, and thus it is in your best interest to review materials before taking them.

I will drop your two lowest quizzes and the remaining will be averaged to compute your grade. If you miss more than two quizzes, each missed quiz will count as a zero.

The final exam is 35% of your grade and is not reweighted under any circumstances.

**There is are no extra credit opportunities offered on an individual basis. None. Never.**

**Exam Policies:** You should not miss any exams.

Makeup exams are given only under extraordinary circumstances. The following must occur in order for a makeup exam to be administered: (1) you must contact me prior to the exam to let me know you will not be attending and the reason why; (2) the makeup exam must be taken before the in-class exam is returned to students (i.e., within 48 hours); and (3) a written excuse from a doctor or the University Counseling Center must be presented (and this will be verified by a follow-up phone call from me to the appropriate office).

<b><u>Exam Dates:</u></b>	<b>Exam 1:</b>	<b>Monday, October 3</b>
	<b>Exam 2:</b>	<b>Wednesday, November 9</b>
	<b>Final Exam (CUMULATIVE):</b>	<b>Wednesday, December 14, 1:00-4:00pm</b>

You may not miss or reschedule the final exam under any circumstances. Should you have three final exams scheduled within 24 hours, please follow the University regulations available online:  
<http://www.ncsu.edu/registrar/calendars/examsprg.html>

**Exam & Quiz Grading:** Exams are graded on a scale of 0-100. I generally do not curve exam grades. On rare occasions, there is a small curve on the overall grades for the course, but do not plan on it. I will use a +/- grading system for your final letter grades.

Exams will be a mixture of multiple choice, short essay and analytical problems. Quizzes will be multiple choice. No programmable calculators, PDAs, cell phones, etc. will be allowed during exams.

**Computer Use During Class:** Lecture notes are not effectively taken using a laptop in this course. You may use a computer only if you have a documented writing disability. **Otherwise, all laptops, PDAs, IPods, iPads, or other devices are to be stored completely out of sight.**

**Class etiquette:** The following should be very obvious – but based on past behavior, it does not appear to be obvious to everyone: 1) You should turn off your cell phone. You may not receive or make phone calls, text messages, or otherwise play with your phone or PDA. 2) No ipods, ipads or similar devices – ear buds out of your ears when class starts. 3) You may not work on other classes, read newspapers, magazines or other materials during class.

**Attendance is not required:** If you choose to come to class, I expect you to engage in class – or at least the very least, you should not be a distraction by being rude (see class etiquette above). If you cannot follow basic etiquette rules, you will be asked to leave.

#### **Students with Disabilities**

Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Services at 1900 Student Health Center, Campus Box 7509, 515-7653. For more information on NC State's policy on working with students with disabilities, please see the "Academic Accommodations for Students with Disabilities Regulation (REG02.20.1)" available here: <http://policies.ncsu.edu/regulation/reg-02-20-01>

**Course Outline:** Assigned readings are subject to change; any changes will be announced in class and posted on Moodle.

“**KO**” in the outline below refers to the required text by **Keohane and Olmstead**. If assigned readings begin or end on specific pages, read only the complete sections beginning/ending on the assigned pages.

All other readings listed below are available via Moodle. **You will need Adobe Reader on your computer to access the Moodle readings (they are all \*.pdf files)**. If you do not have this program, you can download it for free here: <http://get.adobe.com/reader/>

*Additional topical readings will be added throughout the semester and will be loaded in Moodle & announced in advance of the class in which they are covered.*

1. Introduction: Economics, Environment and Policy

KO: Preface (page IX only) and Introduction (page 1-6 and 9-10)

Miller, et al., “Death by Bureaucrat,” pages 5-10.

The Economist, “Welcome to the Anthropocene”

2. How markets work and important basic concepts.

KO: Chapter 4 (all)

Tietenberg, 2006, pages 62-67

Optional reference material:

Krugman and Wells, chapters 3 and 4.

3. Externalities

KO: Chapter 5, pages 66-70.

Harris, 2006, pages 39-49 (with particular attention to pages 45-46; the other pages are another source of the same information in KO pages 66-70).

4. Public Solutions to Externalities: Standards, Taxes and Permits

KO: Chapter 2, pages 11-27

KO: Chapter 8, pages 129-152

KO: Chapter 9

5. Private Solutions to Externalities: The Coase Theorem

KO: pages 126-129

6. Non-market Valuation

KO: Chapter 3

Goodstein, 2006, pages 145-156.

7. Benefit-Cost Analysis

KO: Chapter 2, pages 28-30.

Boardman, et al., pages 1-17.

8. Public Good Provision and Market Failure

KO: Chapter 5, pages 70-83.

9. Energy and Climate Change

KO: Chapter 6

10. Fisheries, Food, and Market Failure (Renewable Resources/externalities)

Eilperin, 2006, A01.

KO: Chapter 7

11. Water Resources

Hanemann, 2005, pages 70-79 (skip sections 3.2 and 3.3, and stop at third paragraph on page 79, ending with “outlandish today.”)

12. Wrap up

“Rescuing Environmentalism”, the *Economist*, April 23, 2005.

Fullerton and Stavins, pages 433-434.