

AGEC 3503: Natural Resource (and Environmental) Economics

Syllabus-Spring 2018

Instructor

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Office Hours: 3:30-4:30pm on Monday, Wednesday, and Friday, and by appointment.

Students are welcome to drop by my office at any time. To meet outside of the scheduled office hours, message beforehand to ensure I'm around. Email works best.

Class Hours

The class time is 2:30pm-3:20pm on **Monday, Wednesday, and Friday** in 218 Coates Hall.

Learning Outcomes

By the end of this class, students should be able to:

- Apply economic principles and tools to analyze natural resource and environmental issues.
- Discuss the economic forces underlying environmental issues and how various policies may improve (or worsen) the outcomes.
- Develop a way of thinking about issues, rather than memorize a set of "answers."

Textbook and Reading

The required textbook is Keohane and Olmstead, 2016. Markets and the Environment, Second Edition, Island Press, ISBN-13: 978-1610916073.

Reading assignments will be drawn from the textbook, provided by the instructor, and/or available on the Internet. In addition to the textbook, news articles and short academic papers that show how economic principles can be applied to current real-world events will be assigned.

Reading assignments (see attached outline) for a topic should be completed **before** the class days in which we discuss that topic.

Exams, Assignments, and Grading

Grades for this class will be determined by:

- | | |
|----------------------|-----|
| • Mid-term exams (2) | 40% |
| • Final exam | 25% |

- Policy Brief 16%
- Homework Assignments 12-14%
- Attendance/Participation/Quizzes 5-7%

The letter grade for the course is determined by the combination of below weights for an overall 0-100 percentage score using the following scale:

97–100	A+	73–76.99	C
93–96.99	A	70–72.99	C-
90–92.99	A-	67–69.99	D+
87–89.99	B+	63–66.99	D
83–86.99	B	60–62.99	D-
80–82.99	B-	<60	F
77–79.99	C+		

**I reserve the right to lower (but not raise) a grade threshold at the *class* level, e.g. change an A from 93% to 92%.

Exams

There will be **two mid-term exams** given during our usual class time and **one final exam** given during finals week. Questions will come from reading assignments, in-class material, and homework; they will test both your understanding of concepts and your ability to apply those concepts to specific problems. Each exam will include a mixture of:

- Multiple-choice questions
- Short-answer questions (from a few words to several sentences)
- Mathematical problems

The second mid-term exam will focus on the material covered after the first mid-term. However, the material in the course is cumulative by its nature, so you will need to use earlier concepts and methods on the second mid-term exam. The final exam will be somewhat longer, and about 20% of it will be material from exam 1 and exam 2.

For each exam, each student may use a simple calculator (*no* graphing calculators, phones, tablets, etc.); no sharing with classmates. Each student may also bring one index card (3.5"×5", front and back) of notes, which must be handwritten and turned in with the exam. No other notes or books are allowed.

Tentative exam dates:

- Mid-term exam #1, Friday, February 16th, in class
- Mid-term exam #2, Wednesday, March 21st, in class
- Final exam, Wednesday, May 2nd, 5:30-7:30pm

Policy Briefs

A key element of this course is applying and communicating key concepts to a real-life environmental issue by composing a policy brief. The topic of each policy brief is up to each person, but must be an issue concentrated at the regional, state, or local level (i.e. *not* national) and must focus on the following prompt:

Prompt

*I am a public official somewhat aware of but otherwise unfamiliar with a pressing resource or environmental issue (of your choice). I am willing to consider your recommendations to prudently implement policy and/or use public resources to protect and improve the lives of the local residents. I am not trained in economics and uninterested in math. As an official with many issues competing for my time, the key is to quickly engage, inform, and advise me on the issue. **Poor writing is not convincing.***

To convince me, provide a well thought-out, but brief (3-4 page, double-spaced) report. The grade for policy brief contains three components: The quality of the initial submission is worth 50%, the quality of your review and feedback is 25%, and your ability to edit and incorporate feedback is worth 25%. This last element is adjusted accordingly based on the quality of the first draft.

Just after exam 1, you will provide a most preferred topic/location and second most preferred topic/location. The second is in case of overlaps. No one is allowed to have the same topic/location. At that time, the policy brief instructions will also be posted.

Homework Assignments

These outside-of-class assignments will help you prepare for in-class discussion and other activities and also reinforce what we cover in class. There are two main types of assignments, Reading and Problem.

Reading assignments consist of a selection of reading material, a list of key ideas to consider while reading the material, and a set of multiple-choice questions to be answered in Moodle after reading. For these assignments, you have two attempts at each set of questions, with only the higher score counting. There are 6-7 Reading assignments planned for the semester.

Problem assignments require solving math-based problems similar to ones discussed in class and the reading assignments. Answers are submitted via Moodle. For these assignments, you can make up to two attempts at each problem, with only the higher score counting. There are 8-9 problem assignments planned for the semester.

All homework assignments are due **one hour** before class on the due date. A total of 14-16 assignments are planned for the semester. Each is worth 1% of your final grade, but the lowest two of these grades will be dropped. If we get through all 16 assignments, then they constitute 14% of your final grade. If we only get through 14, then they make up 12% of your final grade.

Attendance/Participation, Class Discussion, and Etiquette

Depending on the number of problem sets assigned, the remaining 5-7% of the grade is composed of attendance/participation/quizzes. We will have several in-class activities that will be graded as attendance/participation. There will also be in-class reading quizzes (both announced or unannounced) to motivate you to be prepared for discussion in class. Students are allotted two personal days that will not count against their attendance/participation, i.e. the **two lowest activity grades will be dropped** when calculating the average for this portion of the grade. This does not apply to policy brief deadlines.

Extra Credit

Extra credit may be available at the instructor's discretion. Extra credit will be announced and made available to the entire class (i.e. *no* individual opportunities).

Make-Ups, Class Discussion, and Etiquette

Any student with an excused absence will be allowed to make up a missed assignment or exam. However, except under extenuating circumstances, the student must notify the instructor within one week and/or provide appropriate verification of the excused absence.

I strongly encourage you to actively participate in class via questions and discussions. In the classroom, please show courtesy by:

- **Silencing phones:** Please silence (not vibrate) phones. Leave the room if you take a call.
- **Being on time:** Please avoid coming late to class or leaving early. If you must do so, sit in an outside seat and try not to disturb the other students.
- **Paying attention:** Please don't sleep, read newspapers, text message, surf the web, or work on assignments for other classes.
- **Respect:** Given the policy-oriented nature of the course, disagreement will occur. Respectfully debate the **issue**; criticism toward a person will receive severe consequences.

Moodle

Handouts, assignments, and other materials will be available in [Moodle](#). Also, keep track of the Announcements page for news about due dates, etc. Grades will also be posted in Moodle.

Prerequisites, Math, and Additional Resources

AGEC 3503 builds from and assumes proficiency in basic economic concepts and skills. Introduction to Agricultural Economics-AGEC 2003 (or equivalent, e.g. ECON 2000) is a prerequisite for this course. Basic concepts will be briefly reviewed at the start of the semester.

Working with economic models for this class involves a significant amount of math, mostly algebra with linear functions and some geometry. You should be comfortable working with graphs and solving equations. Spreadsheets (e.g., Excel) will be used for some topics. Showing calculations on assignments and exams is required. A [handout](#) is available that reviews the necessary math concepts.

Academic Integrity/Cheating Policy

Cheating of any form is prohibited and will be penalized. The minimum punishment in this

course is a **0** for the assignment. Other penalties include failing the course, reported to the Office of Student Advocacy & Accountability, or expulsion. Related policy is in the Code of Student Conduct: saa.lsu.edu/Code%20of%20Student%20Conduct%20August%2009.pdf

Accommodations

If you have a disability that may require academic accommodations, please see me as soon as possible. In order to receive accommodations in this course, please provide a Letter of Accommodation from the Office of Disability Services (124 Johnston Hall, phone: 225-578-5919, email: disability@lsu.edu), which coordinates the campus disability services available to students with disabilities. The DRC’s website is students.lsu.edu/disability

Outline, Reading Assignments, and Schedule

This course first covers fundamental tools and concepts used in economics, and the remainder will analyze environmental and natural resource issues using those tools. We will discuss the “ideal” outcome in each situation, reasons why the actual outcome is different, and potential policy measures for improving the actual outcomes.

The following schedule summarize the topics and readings as well as tentative policy brief and homework assignment dates. Specific due dates, links to material, as well as any changes to this outline or the assignments will be announced in class and posted in Moodle.

Schedule and Outline of Topic

Date	General Topic	Assignments Due	Related Material
W 10-Jan	Introduction		Syllabus
F 12-Jan	Markets		Basic Model-Concepts Reading Handout
M 15-Jan	Holiday-MLK		
W 17-Jan	CANCELLED		
F 19-Jan	CANCELLED		
M 22-Jan	Markets	HW1 (Reading) - Markets & the Basic Model	Basic Model – Math Review Handout
W 24-Jan	Markets	HW2 (Problem) - Basic Model	Demand and Supply Shifts
F 26-Jan	Markets	HW3 (Problem) - Demand & Supply Shifts	Ethanol Policy
M 29-Jan	Distorted Markets	HW4 (Reading) - Distorted Markets	Distorted Markets Reading
W 31-Jan	Distorted Markets		Price Ceilings
F 2-Feb	Distorted Markets	HW5 (Problem) - Price Ceilings	Gasoline Price Controls
M 5-Feb	No Class		
W 7-Feb	Distorted Markets		Nonmarginal Pricing
F 9-Feb	Distorted Markets	HW6 (Problem) - Nonmarginal Pricing	Water Pricing

M	12-Feb	Holiday-Mardi Gras	
W	14-Feb	Exam #1 Review	Exam #1 Review Handout
F	16-Feb	Exam #1	
M	19-Feb	Market Failures	HW5 (Reading) – Market Failures
W	21-Feb	Market Failures	
F	23-Feb	Market Failures	
M	26-Feb	Market Failures	
W	28-Feb	Market Failures	
F	2-Mar	Market Failures	
M	5-Mar	Market Failures	
W	7-Mar	Market Failures/Policy	
F	9-Mar	Policy	
M	12-Mar	Policy	
W	14-Mar	Policy	
F	16-Mar	Policy	
M	19-Mar	Policy	
W	21-Mar	Exam #2 Review	
F	23-Mar	Exam #2	
M	26-Mar	Holiday-Spring Break	
W	28-Mar	Holiday-Spring Break	
F	30-Mar	Holiday-Spring Break	
M	2-Apr	Valuation Concepts	
W	4-Apr	Valuation Concepts	Original Policy Brief
F	6-Apr	Valuation Concepts	
M	9-Apr	Valuation Concepts	
W	11-Apr	Valuation Concepts/Methods	Policy Brief Feedback
F	13-Apr	Valuation Methods	
M	16-Apr	Valuation Methods	
W	18-Apr	Valuation Methods	Revised Policy Brief
F	20-Apr	Valuation Methods	
M	23-Apr	Valuation Methods	
W	25-Apr	Student Choice Topic	
F	27-Apr	Final Exam Review	
W	2-May	Final Exam	

****Disclaimer:** All information within this syllabus is subject to change at my discretion**