

AEC 445 –RESOURCE AND ENVIRONMENTAL ECONOMICS

Texas A&M University-Commerce

School of Agriculture

Spring 2016

Instructor: Dr. Angus McIntosh

Phone: (970) 213-1005

Email: Angus.McIntosh@tamuc.edu

Class Section: 01W (Online)

Class Time:M-F (Online)

Office Hours:For online consultation I will be available Mondays to Fridays from 10:30 a.m. - 11:30 a.m. You can contact me via email at Angus.McIntosh@tamuc.edu. Alternatively, you can email me from eCollege (<http://www.online.tamuc.org/>). The best way to contact me is via email.

Required Text:*Environmental & Resource Economics* by Tom Tietenberg and Lynne Lewis. Addison-Wesley, New York, 8th Ed., 2008. (ISBN 9780321485717 or ISBN 0321485718)

Prerequisites:None.

Teaching Philosophy:

1. A course must deliver information, concepts and methods that will be useful in the student's professional life. However, learning analytical reasoning skills and improving the ability to process and use information efficiently is more important than memorizing facts and formulas and performing procedures repeatedly.
2. Students learn best when theories, concepts and procedures are explained in plain language as well as formally, and are complemented with examples or applications that are relevant to the students.

Character Formation: It is important during your college education to learn the values and rewards of hard work, responsibility, honesty and striving for excellence at all times. The professor will promote character formation while teaching the course.

Course Description: This course explores approaches agricultural economists take to solve environmental and/or natural resource economic problems. It examines both the economic roots of environmental problems and the alternative solutions that may be implemented. The course introduces fundamental questions a policymaker must answer to analyze policy scenarios and determine environmental regulations, including issues related to efficiency and distribution.

Student Learning Outcome: To provide students with economic concepts that can be applied to the solution of current environmental problems. Upon completion of the course the student will have an understanding of the economic tools employed in the management and protection of natural and environmental resources. This student learning outcome will be measured by demonstrating understanding of following natural resource economics topics.

Topics:

Part I: Introduction to Environmental Problems and Comparison of Ideology

Chapter 1: Vision of the Future

- Has society chosen a path that can only lead to its destruction? Chapter 1 examines two different views to this question: the pessimistic view and the optimistic view.

Chapter 2: Valuing the Environment: Concepts

- The general conceptual framework to approach environmental problems. A discussion about human actions, their relationships, consequences, and criteria for judging the outcomes. The basis for identifying the nature and severity of environmental problems, and designing effective policies to deal with them.

Part II: Evaluation Criteria to Current Environmental Problems

Chapter 3: Valuing the Environment: Methods

- The implementation of benefit/cost analysis in an environmental context. Identification and discussion of the various valuation techniques for environmental resources in both ex ante and ex post settings. A discussion of the strategies that exist for using economics to protect the environment.

Chapter 4: Property Rights, Externalities, and Environmental Problems

- The concept of property right and how it can be used to understand why the environment can be undervalued by both the market and governmental policy. A discussion on how the government and the market can use knowledge of property rights to resolve difficulties emerging from diverse interests between an individual or group and those of society at large.

Chapter 5: Dynamic Efficiency and Sustainable Development

- The treatment of future generations. The allocation of a depletable resource over time. The temporal allocation of a depletable resource using a dynamic efficiency criterion. A discussion of intertemporal fairness, dynamic efficiency, and intergenerational fairness.

Part III: Natural Resource Economics

Chapter 6: The Population Problem

- How population affects and is affected by the development process. Microeconomic issues dealing with economic determinants of fertility. The causes and consequences of population growth and approaches for controlling population growth.

Grading:

Exam 1.....	20.00%
Exam 2.....	20.00%
Exam 3.....	20.00%
Exercises – Short Exercises and Short Answers....	20.00%
Exercises – MC Questions.....	10.00%
Video/Article Summaries.....	10.00%
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	100.00%

Note: There will be a final comprehensive exam (Exam 4). The final comprehensive exam will replace one (the lowest) exam grade.

Grading Scale:

<u>Range</u>	<u>Grade</u>
90-100.00	A
80-89.99	B
70-79.99	C
60-69.99	D
Less than 60	F

Exams: Make sure you take all the mandatory exams (see Class Schedule below). No makeup exams will be offered. A grade of zero will be assigned to any missed mandatory exams. Exams and quizzes will be administered through eCollege. Exams will be timed and are to be completed by 11:59 PM on the due date. Make sure you have internet access and that your laptop battery is fully charged (if using a laptop computer).

Exercises: Exercises will be graded and should be considered very important course material for your exam preparation. Exercises involve economic concepts, principles, methods and procedures that are applied to environmental problems. Students will be required to submit their individual answers via eCollege according to the class schedule provided (see Class Schedule below). Exercises will become active the first day of each week and are to be completed by 11:59 PM on the due date.

Video/Articles Summaries: Students will watch a video online or read an article. You will be required to submit your individual summaries via eCollege according to the class schedule provided (see Class Schedule below). The videos or articles will highlight current resource and environmental economic issues and trends.

Review Questions: Review Questions will not be graded. Students are welcome to ask questions during office hours. Review Questions summarize and assist students understanding the materials covered by the instructor and should also assist students in preparing for quizzes and exams. Consider the Review Questions as a Study Guide for the exams. The students are NOT required to submit their answers.

Class preparation and attendance: It is your responsibility to read and study the book chapters that will be covered, to read and study all handouts, to complete and submit all course assignments in-time, and to take all the mandatory exams before the deadline. Students are strongly encouraged to contact the instructor if they have any questions or comments. Email is the best way to contact me. I will be available for consultation via email or for in-person consultation during office hours.

Students with Disabilities: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library

Room 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

StudentDisabilityServices@tamuc.edu

Counseling Center: A student that faces a crisis or a serious and unforeseeable event that affects his/her class performance must contact the Counseling Center, Student Services Building, Room 204, Phone (903) 886-5145. If important class material or course assignments are missed because of such crisis or event, the student must contact the instructor as soon as possible.

General Policies for Classes: All students enrolled at the University will follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. See Student's Guide Handbook, Rules and Procedures, Code of Student Conduct (<http://www.tamuc.edu/CampusLife/documents/studentGuidebook.pdf>).

Academic Integrity: Students must follow the *Code of Student Conduct* in the *Student Guidebook* (<http://web.tamuc.edu/admissions/studentGuidebook.aspx>). Any form of plagiarism or academic dishonesty will not be tolerated. Academic honesty is defined on *Chapter 13 Students (Academic)* of the *TAMUC Rules and Procedures* (<http://web.tamuc.edu/aboutus/policiesproceduresstandardsstatements/rulesprocedures/>):

“Academic dishonesty” includes, but is not limited to, plagiarism (the appropriation or stealing of the ideas or words of another and passing them off as one's own), cheating, collusion (the unauthorized collaboration with others), and abuse (destruction, defacing, or removal) of resource material.

Course Design: The dates for all class activities and exams are announced in the Class Schedule provided at the end of this syllabus.

Course access and navigation: This course will be facilitated using eCollege. Students are required to access important class material from the eCollege website for the course. To get started with the

course, go to: <http://www.online.tamuc.org/>. You will need your CWID and password to log in to the course. Make sure you visit this website every day.

If you do not know your CWID or have forgotten your password, contact Technology Services at 903.468.6000 or helpdesk@online.tamuc.org

Technology Requirements: The following information has been provided to assist you in preparing to use technology successfully in this course.

- Internet access/connection – high speed recommended (not dial-up)
- Word Processor (i.e. MS Word or Word Perfect)

Additionally, the following hardware and software are necessary to use eCollege:

Our campus is optimized to work in a Microsoft Windows environment. This means our courses work best if you are using a Windows operating system (XP or newer) and a recent version of Microsoft Internet Explorer (6.0, 7.0, or 8.0).

Your courses will also work with Macintosh OS X along with a recent version of Safari 2.0 or better. Along with Internet Explorer and Safari, eCollege also supports the Firefox browser (3.0) on both Windows and Mac operating systems.

It is strongly recommended that you perform a “Browser Test” prior to the start of your course. To launch a browser test, login in to eCollege, click on the ‘myCourses’ tab, and then select the “Browser Test” link under Support Services.

Important Dates:

Jan. 18, Monday	Martin Luther King Jr. Day (No Class)
Jan. 18, Monday	Last Day to Withdraw (Drop ALL Classes) with 100% Refund
Jan. 19, Tuesday	First day of classes.

March 14 – 18	Spring Break (No Class)
May 6, Friday	Last day of classes.
May 7 – 13	Finals Week

The instructor reserves the right to make modifications to this syllabus during the semester.

AEC 445 – Resource and Environmental Economics

Class Schedule, Spring 2016

Web Based Course

Week	Subject/Material Covered	Assignment Due By 11:59 PM on Due Date
Week 1 Jan 19 +Jan 22	Syllabus CH01: Vision of the Future	eCollege Tutorial Exercise - MC Exercise - SE or SA Video/Article Summary
Week 2 Jan 25 + Jan 29	CH02: Valuing the Environment: Concepts	Exercise - MC Exercise - SE or SA Video/Article Summary
Week 3 Feb 1 + Feb 5	CH03.PART01: Valuing the Environment: Types of Values	Exercise - MC Exercise - SE or SA Video/Article Summary
Week 4 Feb 8 + Feb 12	CH03.PART02: Valuing the Environment: Valuation Methods for Benefits, GIS, and Issues	Exercise - MC Exercise - SE or SA Video/Article Summary
Week 5 Feb 16 + Feb 19	CH03.PART03: Valuing the Environment: Valuation Methods for Costs, Risk,	Exercise - MC Exercise - SE or SA

	Discount Rate, Cost-Effectiveness Analysis, and Impact Analysis.	Video/Article Summary
Week 6 Feb 22 + Feb 26	Exam 1 (CH01, CH02, and CH03)	
Week 4 Feb29 + Mar 4	CH04.PART01: Property Rights, Externalities as a Source of Market Failure, Improperly Designed Property Right Systems	Exercise - MC Exercise - SE or SA Video/Article Summary
Week 7 Mar 7 + Mar 11	CH04.PART02: Imperfect Market Structures, Social and Private Discount Rates, Gov. Failure, and The Pursuit of Efficiency	Exercise - MC Exercise - SE or SA Video/Article Summary
Week 9 Mar 14 + Mar 18	SPRING BREAK (No Class)	
Week 10 Mar 21+Mar 25	Exam 2 (CH04)	

Week 11 Mar 28 + Apr 1	CH05: Dynamic Efficiency and Sustainable Development	Exercise - MC Exercise - SE or SA Video/Article Summary
Week 12 Apr 4 + Apr 8	CH06.PART01: The Population Problem: Effects of Population Growth on Economic Development	Exercise - MC Exercise - SE or SA Video/Article Summary
Week 13 Apr 11+Apr 15	CH06.PART02: The Population Problem: Effects of Economic Development on Population Growth, The Economic Approach to Population Control	Exercise - MC Exercise - SE or SA Video/Article Summary
Week 14 Apr 18+Apr 22	Exam 3 (CH05, CH06)	
Week 15 Apr 25+Apr 29	Selective Topics	Exercise - MC Exercise - SE or SA Video/Article Summary
Week 16 May 2 + May 6	Review/Study Week	

Week 17	Exam 4 - Final Comp. Exam	
Finals Week	(CH01 through CH06)	