

**Introduction to Natural Resource and Environmental Economics**  
**AEB 3450 (3 credits)**  
**Section 2208**

**Course Description:** The course is designed to introduce students to natural and environmental resource economics issues and theory. Emphasis is placed on understanding economic concepts such as resource scarcity, externalities, property rights, opportunity cost, sustainability, and valuation in their application to studies of natural resources and environmental amenities. Key social and demographic factors will be evaluated in the context of the demand for environmental assets and amenities.

**Instructor**

*Douglas R. Carter, Professor*  
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Office hours: Wednesday and Fridays 4:00 – 5:00,  
and by appointment

**Student Learning Outcomes**

Upon satisfactory completion of the course, you should be able to:

- Apply economic principles to problems involving public and private natural resources and the environment
- Critically evaluate natural resource and environmental policies using basic economic tools (e.g., graphical welfare analysis)
- Understand the economic justification for regulatory action in allocating, managing, and protecting the environment and natural resources

Natural resources and the environment serve many economic, social, and environmental needs of people around the world. The patterns of use and management of natural resources can have a profound impact on the economy and the environment. It is critical for resource professionals and others to understand and be able to evaluate resource and environmental policies, programs and even individual choices through the lens of economics.

The specific goals of *Introduction to Natural Resource and Environmental Economics* are to:

- Help you develop an understanding of concepts and theories of natural resource and environmental economics, and
- Advance your ability to critically evaluate natural resource and environmental policies and problems from an economic perspective

## Course Meeting Times

Times	Days	Classroom
1:55pm – 2:45pm	Wednesdays	
1:55 pm – 3:50 pm	Fridays	MCCA 1142

## Required Text

Tietenberg, T. and L. Lewis. 2015 *Environmental and Natural Resource Economics, 10<sup>th</sup> Edition*. Routledge. 606 pp. ISBN 0-13-347969-2

## Class Format, Policies on Attendance and Make-up Exams

The class meets three times per week for 50 minutes. The course schedule outlines the topics covered each week. The course will have a Canvas website where Powerpoint lectures can be downloaded, as well as other course material. You may contact me through Canvas or my email directly.

Please come to class on time. The room will be full and it is disruptive to others when you arrive late and attempt to find an open seat. If you are late, please take your seat as quietly as possible. Please be respectful and polite to your classmates and instructor both in and out of class. Please, NO cell phones or food in class.

You are expected to attend all lectures, to read the assigned materials, and to actively participate in class discussion. Participation helps synthesize class material, improves public speaking skills (very important regardless of your career path), and allows the class to draw from students' diverse experiences, backgrounds, and insights. Active participation includes sharing thoughts, asking relevant questions, summarizing information in a way that informs discussion, and otherwise engaging with the class in a professional manner.

In the Schedule of Class Topics below, please note the "Questions for Discussion." These are discussion questions and problems from the Tietenberg and Lewis text. They will be used to illustrate key concepts and to provide a platform for class discussion. You are encouraged to complete them before class; however, they will not be graded (unless they reappear on an exam).

## Evaluation of Student Learning

100% Exams (4) NOTE: Your highest score is worth 40%, and your lowest three count 20% each

## Grading Scale (NOTE: minus grades are not assigned)

90-100%: A	87-89.9%: B+	77-79.9%: C+	67-69.9%: D+	0-59.9%: E
	80-86.9%: B	70-76.9%: C	60-66.9%: D	

Please see <http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html> for information about UF course grade policies.

**Schedule of Class Topics** (subject to change):

<b>Dates</b>	<b>Topics</b>	<b>Readings</b>	<b>Questions for Discussion</b>
Wed, Aug 23	Course introduction	n/a	
Fri, Aug 25	Overview of natural resource economics	Ch. 1	
Fri, Aug 25	"	"	Discussion question 4 (p.13)
Wed, Aug 31	Property rights, externalities, and market failure	Ch. 2	
Fri, Sep 02	"	"	Discussion question 2 (p. 44)
Fri, Sep 02	"	"	Problem 2 (p. 44)
Wed, Sep 07	Benefit-Cost Analysis	Ch. 3	
Fri, Sep 09	"	"	Problem 1 (p. 71)
Fri, Sep 09	"	"	Discussion question 1 (p. 71)
Wed, Sep 14	Valuing the environment: methods	Ch. 4	
Fri, Sep 16	"	"	
Fri, Sep 16	"	"	Discussion question 1 (p. 102)
Wed, Sep 21	"	Ch. 4	
Fri, Sep 23	"	Ch. 4	Problems 1 and 3 (p. 103)
Fri, Sep 23	Review for exam	Chs. 1-4	
Wed, Sep 28	<b>Exam 1</b>	Chs. 1-4	
Fri, Sep 30	Dynamic efficiency and sustainable development	Ch. 5	Discussion question 1 (p. 118)
Fri, Sep 30	"	Ch. 5	
Wed, Oct 05	"	Ch. 5	Problems 1 and 2 (p. 118)
Fri, Oct 07	Depletable resource allocation	Ch. 6	
Fri, Oct 07	"	"	
Wed, Oct 12	Energy	Ch. 7	
Fri, Oct 14	no class (Homecoming)	"	
Fri, Oct 14	"	"	Discussion questions 1 and 2 (p. 171)
Wed, Oct 19	Energy	Ch. 7	
Fri, Oct 21	"	"	
Fri, Oct 21	Review for exam 2	Chs. 5-7	
<b>Wed, Oct 26</b>	<b>Exam 2</b>	<b>Chs. 5-7</b>	

Fri, Oct 28	Recyclables	Ch. 8	
Fri, Oct 28	“	“	Discussion question 1 (p. 197) Problems 1 and 2 (p. 198)
Wed, Nov 02	Water	Ch. 9	
Fri, Nov 04	"	“	
Fri, Nov 04	“	“	TBA
Wed, Nov 09	Land	Ch. 10	
Fri, Nov 11	No class (Veteran’s Day)	n/a	
Fri, Nov 11	“	n/a	
Wed, Nov 16	Land	Ch. 10	
Fri, Nov 18	"	“	
<b>Fri, Nov 18</b>	<b>Exam 3</b>	<b>Chs. 8-10</b>	
Wed, Nov 23	No Class (Thanksgiving)	n/a	
Fri, Nov 25	Forests	Ch. 11	
Fri, Nov 25	“	“	
Wed, Nov 30	“	“	
Fri, Dec 02	Air pollution	Ch. 14-15	
Fri, Dec 02	"	“	
Wed, Dec 07	Review for final	Chs. 1-11, 14, 15	
<b>Wed, Dec 14</b> (10:00 – 12:00pm)	<b>Comprehensive final exam</b>	Chs. 1-11, 14, 15	

## Other Information

### Academic Honesty, Software Use, UF Counseling Services, Services for Students with Disabilities

In 1995 the UF student body enacted an [honor code](#) and voluntarily committed itself to the highest standards of honesty and integrity. When students enroll at the university, they commit themselves to the standard drafted and enacted by students.

In adopting this honor code, the students of the University of Florida recognize that academic honesty and integrity are fundamental values of the university community. Students who enroll at the university commit to holding themselves and their peers to the high standard of honor required by the honor code. Any individual who becomes aware of a violation of the honor code is bound by honor to take corrective action. The quality of a University of Florida education is dependent upon community acceptance and enforcement of the honor code.

**The Honor Pledge: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.**

On all work submitted for credit by students at the university, the following pledge is either required or implied: **"On my honor, I have neither given nor received unauthorized aid in doing this assignment."**

The university requires all members of its community to be honest in all endeavors. A fundamental principle is that the whole process of learning and pursuit of knowledge is diminished by cheating, plagiarism and other acts of academic dishonesty. In addition, every dishonest act in the academic environment affects other students adversely, from the skewing of the grading curve to giving unfair advantage for honors or for professional or graduate school admission. Therefore, the university will take severe action against dishonest students. Similarly, measures will be taken against faculty, staff and administrators who practice dishonest or demeaning behavior.

Students should report any condition that facilitates dishonesty to the instructor, department chair, Student Honor Council, or Student Conduct and Conflict Resolution in the Dean of Students Office.

*(Source: 2011-2012 Undergraduate Catalog)*

It is assumed all work will be completed independently unless the assignment is defined as a group project, in writing by the instructor.

This policy will be vigorously upheld at all times in this course.

#### Software Use:

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or

criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

### **Campus Helping Resources**

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- *University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, [www.counseling.ufl.edu/cwc/](http://www.counseling.ufl.edu/cwc/)*  
Counseling Services  
Groups and Workshops  
Outreach and Consultation  
Self-Help Library  
Training Programs  
Community Provider Database
- *Career Resource Center, First Floor JWRU, 392-1601, [www.crc.ufl.edu/](http://www.crc.ufl.edu/)*

### **Students with Disabilities**

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues.

0001 Reid Hall, 352-392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)