

FOR 6543
NATURAL RESOURCE ECONOMICS AND VALUATION
(3 credits)

Online (sections): **1F45, 1F54**

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Office hours: Fridays 9:00-11:00, Newins Ziegler 222, and by appointment

Course Website: This course will use Canvas for e-Learning; the login can be found at lss.at.ufl.edu. We will actively use the course website, through which you can send e-mails to classmates or to us, check your grades, check class announcements, access the syllabus, etc. *Check the e-learning website before every lecture.*

Course Communications: The Canvas messaging system (Inbox) is the best way to get in touch with the instructors about any class-related questions, concerns, etc. during the semester. Also, please use the Discussions to receive help from your peers as well as the course facilitators for technical support.

Course Pre-requisites: There are no pre-requisites but a course in microeconomics is suggested.

Course Description: This course covers the role of economics in decisions that affect natural resources and the environment. Students will learn and apply economic concepts to issues that involve the sustainable use of natural resources and how to evaluate projects and regulations designed to protect environmental quality.

Students will learn and apply basic economic concepts to natural resource issues. At the end of the course students should be able to:

1. identify and define key themes, principles, terminology, and relevant economic concepts related to anthropogenic uses of natural resources and the environment;
2. know the theory and techniques that are used to value and protect natural resources and the environment; and
3. discuss, from an economic perspective, environmental protection as it relates to land use, economic growth, and the use of cost-benefit analysis.

Required Text and Additional Readings

Required Text: Goodstein, Eban S., Polasky, Stephen. 2014. *Economics and the Environment*, 7th Edition. Wiley & Sons, Inc.

The course will cover the first 12 chapters of the required text with the exception of chapters 7 and 11.

Suggested Readings (Available through e-learning at lss.at.ufl.edu):

Suggested readings will be posted periodically throughout the semester and correspond to the current lectures.

Course Schedule:

Dates	Topics	Readings
Section 1. Economic Questions		
Week 1	Introduction	Chapter 1
	The Four Questions	
	How Much Pollution is too Much?	
	Is the Government Up to the job?	
	How Can We Do Better?	
	Can we Resolve Global Issues?	
Section 2. Ethics and Economics		
Week 2	Utility and Utilitarianism	Chapter 2
	Social Welfare	
Section 3. Pollution and Resource Degradation as Externalities		
Week 3	Externalities	Chapter 3
	Property Rights	
	The Open Access Problem	
	Public Goods Problem	
Section 4. The Efficiency Standard		
Week 4-5	Definition of Efficiency	Chapter 4
	Efficient Pollution Levels	
	The Coase Theorem	
	Ethical Basis of the Efficiency Standard	
Section 5. Measuring the Benefits of Environmental Protection		
Week 6-7	Use, Option and Existence Value	Chapter 5
	Consumer Surplus, WTP and WTA	
	Approaches to Measure Benefits	
	Contingent Valuation	
	Travel Cost	
	Hedonic Regression	
Section 6. Measuring the Costs of Environmental Protection		
Week 8	Engineering Costs	Chapter 6
	Productivity Impacts of regulation	
	Employment Impacts of Regulation	
	Benefit Cost-Analysis	

Section 7. The Sustainability Standard		
Week 9-10	Sustainability, Neoclassical and Ecological Approaches	Chapter 8
	Future Benefits, Costs and Discounting	
	The Social Discount Rate and Dynamic Efficiency	
	Discounting Climate Change	
	Ecological Economics, Strong Sustainability and the Precautionary Principle	
Section 8. Measuring Sustainability		
Week 11-12	Malthus and Ecological Economics	Chapter 9
	Strong Sustainability	
	Weak Sustainability	
	Natural capital depreciation	
	Discounting and Sustainability	
	The Ecological-Neoclassical Debate	
Section 9. Natural Resources and Ecosystem Services		
Week 13-14	Nonrenewable Resources and the Hotelling Model	Chapter 10
	Renewable Resources	
	Ecosystem services and Natural Capital	
Section 10. The Political Economy of Environmental Regulation		
Week 15-16	The Process of Environmental Regulation	Chapter 12
	Type of Public Policies	
	Public Incentive Policies	
	Regulation under Imperfect Information	

Class Format

Lectures will be posted on the e-learning website and accessible throughout the semester. Typically, each new lecture will be posted to the e-learning site every Thursday night. The course will be separated between lectures, assigned readings, and out-of-class assignments (see course schedule above).

Course Policies

Attendance: Attendance and active engagement with the course is critical to your success in the course; however, class participation will not be assessed as part of your course grade. Students are expected to stay current with all lectures, read all assigned materials, submit assignments, take exams on the scheduled dates, and regularly communicate with classmates and instructors. Active participation includes sharing thoughts, asking relevant questions, summarizing information in a way that stimulates discussion.

Assignments are due via e-learning by midnight of their due date. Unless otherwise agreed, late assignments will be penalized as follows: -10% if between 1 minute and 24 hours late, -20% if 24 to 48 hours late, -30% if 48 to 72 hours late, -40% if 72 to 96 hours late. Assignments will not be accepted if more they are submitted more than *96 hours late*.

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Grading

There will be 10 online assignments (quizzes and or readings critiques) for Sections 2-10, approximately every 1 week. Each assignment will be due the following week. The 9 highest grades will be used to determine your course grade. Each assignment relates to the corresponding textbook chapter and supplemental assigned readings in Canvas. All assignments are weighted equally. Each assignment is worth 100 points. There is no final exam. Grades will be assigned based on the following percentages:

Grade	Percentage	Total points
A	$\geq 90.0\%$	≥ 855
B+	85.0 - 89.9%	807-854
B	80.0 - 84.9%	760-806
C+	75.0 - 79.9%	712-759
C	70.0 - 74.9%	665-711
D+	65.0 - 69.9%	617-664
D	60.0 - 64.9%	570-616
E	$\leq 59.9\%$	0

Student participation will be measured by the extent the student participates within the discussion forums. The instructors will periodically assign students as discussion leaders: the discussion leader will post a topic of their choosing, but must remain relevant to the most recent material covered in the course and is subject to the instructors approval. All students are expected contribute in the posted discussions and will count toward the students final grade. Relevant, active and continuous participation in the discussion sections will be determined at the instructors discretion at the end of the semester. Participation is worth a maximum of 50 points.

There will be a total of 950 points available for the course.

UF Policies:

University Policy on Accommodating 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. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations. Contact: 0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

University Policy on Academic Misconduct: As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following 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." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that

facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/SCCR/honorcodes/honorcode.php>

Netiquette: Communication Courtesy: All members of the class are expected to follow rules of common courtesy in all email messages, discussions and chats.
<http://teach.ufl.edu/docs/NetiquetteGuideforOnlineCourses.pdf>

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.

Getting Help with E-learning:

For issues with technical difficulties for E-learning, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up. Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.

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/
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/*