

## Economics of Natural Resource Use – Spring 2022

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**Instructor:** Dr. Ly Nguyen (pronounced Dr. Win)– Postdoc Associate  
**Office:** G121 McCarty Hall B  
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**Location:** Tuesday: 1:55 PM-2:45 PM @ Turlington L005  
Thursday: 1:55 PM - 3:50 PM @ Turlington L005  
**Office Hours:** Tuesday: 3:00 – 4:30 PM (In person or Zoom)  
Thursday: 4:00 – 5:00 PM (In person or Zoom)

**TA:** Nicholas Haley  
Email: [nhaley@ufl.edu](mailto:nhaley@ufl.edu)  
TA Office Hours: Wednesday 12:30-2:30 in 2120 MCCB

**Credits:** 3

**Prerequisites:** There is no prerequisite for this course

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*This course aims to introduce how economists value the environment and regulations designed to protect our natural resources from overuse and degradation.*

**Credit Guidelines:** A grade of C or better is required to earn general education credit and the course cannot be taken S-U (<http://gened.aa.ufl.edu/>)

**Communication:** E-mail (either to my email address or via canvas messaging) is preferable. The office hours should be taken equally by all students. Any course announcements will be sent via email or posted on canvas.

**Undergraduate Coordinator:** Dr. Misti Sharp @ 1189 McCarty Hall A; Phone: 352-294-7632;  
E-mail: [mistisharp@ufl.edu](mailto:mistisharp@ufl.edu)

**FRE Technology Assistance:** Dave Depatie @ 1197 McCarty Hall A; Phone: 352-394-7641;  
E-mail: [ddepatie@ufl.edu](mailto:ddepatie@ufl.edu)

### Required Course Materials:

- **E-learning:** There is an [E-Learning Canvas webpage](http://elearning.ufl.edu) for this course. E-learning can be accessed via <http://elearning.ufl.edu> using your Gatorlink username and password. If you are having difficulties accessing E-learning, please contact the UF Computing Help Desk by calling (352)-392-HELP or via email [helpdesk@ufl.edu](mailto:helpdesk@ufl.edu).
- **Required Textbook:** Barry Field: Natural Resource Economics An Introduction, 3<sup>rd</sup> Edition. Other editions may be adequate. It is the student's responsibility to ensure the content is similar to the required text.

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- **Supplemental Materials:** Tietenberg and Lewis: Environmental Economics and Policy, 6th Edition.

### Course Description:

The study of environmental economics provides a means for understanding how the incentives that underlie human decision-making impact the environment and the design of environmental policy. In this course, we will apply fundamental economic theory to analyze a broad range of contemporary environmental issues. We will take a closer look at issues related to pollution and the management of natural resources including water, energy, food, and fisheries as they each present challenges in a policy setting.

### Course Objectives:

- 1) Identify the range of economic costs and benefits of a particular environmental policy and the tools that can be used to estimate these costs and benefits.
- 2) Assess how economic incentives influence individual and group behavior and how this knowledge can be used to explain and address environmental challenges.
- 3) Improve critical thinking skills to assess the tradeoffs inherent to a broad range of contemporary environmental and natural resource allocation issues.
- 4) Apply economic concepts to an environmental issue with the goal of developing skills to communicate in an effective manner through creative work.

**Course Topics:** This course is broken into two main sections: environmental economics and natural resource economics. While the work that environmental economists and natural resource economists do overlap in some ways, the main distinction is that environmental economics is focused on the valuation of environmental goods and bads within an existing economic system whereas natural resource economics is focused on market failure related to resources that arise from characteristics of the resource itself. The course is divided based on this distinction with the first part focusing on economic frameworks, valuation techniques and pollution control and the second part focusing on the allocation of natural resources based on issues of property rights and biophysical processes associated with each resource.

### Class Structure:

- This class is scheduled for 1 period on Tuesday and 2 periods on Thursday. Classes will involve a mixture of lecturing, discussion, and various active learning activities all designed to help increase your understanding of the course topics.
- AEB 2451 will be delivered via traditional lectures. Theories and frameworks will be presented in class and we will discuss their derivations as well as applications to the 'real world.' Quantitative reasoning and analytical methods are used extensively. Therefore, knowledge of economic principles and concepts is necessary. Keeping up with local and regional news, particularly economic news, is imperative in this course.
- This course will proceed at a fairly rapid pace, so it is expected that students will complete textbook and handout reading assignments before class. In addition, the class is designed such that class participation (not just attendance but active participation) and individual study and preparation

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outside of class are necessary for learning and performing well in the exams. While lectures will cover the major points of assigned readings, students are required to read and understand all assigned readings.

- If you do get sick or have an absence that qualifies as an “excused” absence, please contact instructor or TA prior to class to ensure you are not penalized for missing class.

This class contains 6 modules:

- Module 1: Introduction
- Module 2: Building Blocks
- Module 3: General Natural Resource Issues
- Module 4: Natural Resource Analysis
- Module 5: Applied Natural Resource Problems
- Module 6: Natural Resource in International Perspective

### **Your grade is composed of the following:**

**Resource Roundtable:** Topics covered in this class are very much prevalent in your local community, state, country, and the world. Policy solutions that make everyone happy are almost impossible as they may not fully address the problem, may be costly to implement, or there may be polarization about the issue. This class include 4 Resource Roundtables. We will hold a resource roundtable wherein each student will represent a perspective on an issue of importance and lead a class discussion about possible policy solutions that are driven by data, economic theory, and incorporation of social values. Students will sign up for the resource roundtables during the week of Jan. 18 and then be assigned perspectives based on interests. You will be graded based on the quality of your contributions to the discussion (assessed by the instructor and through peer evaluation), your participation in peer review, and a reflection of the roundtable discussion. Anticipated roundtable topics (see schedule at the end of the syllabus):

Roundtable 1: Valuing the Natural Resource – Red Tide

Roundtable 2: Economics of Energy – Sustainable Fuels in American Aviation Water

Roundtable 3: Economics of Water – The Tri-State Water Wars

Roundtable 4: Climate Change – Paris Climate Agreement

**Module assignments:** There will be a total of 6 assignments. These assignments will require economic reasoning (which is often quantitative and/or graphical) and should be attempted as early as possible to ensure the best possible work and corresponding grade. It is in your best interest to attempt all assignments. Students are encouraged to discuss assignments with others but need to write up your own answers.

**Module quizzes:** There will be a total of 6 quizzes. Each quiz includes multiple choice questions related to assignments, readings, and lectures. Each quiz will be weighted equally and will not be *explicitly* cumulative although all modules are based in the same economic framework. Quizzes will take place during regular classtimes and will include multiple choice and open-ended questions. Make-up quizzes will only be available to those with excuses validated by the Dean of Students Office ([https://dso.ufl.edu/areas\\_services/care-area/](https://dso.ufl.edu/areas_services/care-area/)).

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**Final Exam:** On **Wednesday, April 27th from 7:30 -9:30 am @ Turlington L005**. The final exam is a cumulative exam featuring multiple-choice and open-response questions will be given. The final exam will be open-note, open-book exam. It may not be dropped and accounts for 16% of your course grade.

**Attendance/Participation:** to create an interactive and educational class setting, I will be using Mentimeter to reward course attendance and participation. It is free to you and only requires the use of your cell phone, tablet, or computer (it is browser based). More information to come in class.

**Course Grade Composition:**

Category	Total Points	% of Total Grade
Resource Roundtable	50 points	20%
Assignments (best 5 of 6)	100 points (20 points each)	40%
Quizzes (best 5 of 6)	50 points (10 points each)	20%
Final Exam	40 points	16%
Attendance/participation	10 points	4%
<b>Total</b>	<b>250 points</b>	<b>100%</b>

**Attendance and Make-up Work:** Requirements for class attendance and make-up assignments and other work are consistent with university policies that can be found at:

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

**Grades and Grade Points:** Grades will be assigned as follows

Grade	Percentage	Total Points	Grade Points
A	92% or more	≥ 230	4.00
A-	90.0 – 91.9%	225 – 229	3.67
B+	86.0 – 89.9%	215 – 224	3.33
B	82.0 – 85.9%	205 – 214	3.00
B-	80.0 – 81.9%	200 – 204	2.67
C+	76.0 – 79.9%	190 – 199	2.33
C	72.0 – 75.9%	180 – 189	2.00
C-	70.0 – 71.9%	175 – 179	1.67
D+	66.0 – 69.9%	165 – 174	1.33
D	62.0 – 65.9%	155 – 164	1.00
D-	60.0 – 62.9%	150 – 154	0.67
E	≤ 59.9%	≤ 149	0.00

**Your final letter grade will be posted on e-learning after the final exam. The professor has the right to change this point structure at any point so long as it improves the student’s final score.**

\*\*Please note that grades are not ‘rounded’ or ‘adjusted’ at the end of the term. Haggling over grades at the end of the semester is NOT entertained. Of course, if there is an error in recording a grade, I will gladly give you the correct points. If you believe that your assignment is incorrectly graded or that your grade is incorrectly posted, please contact me via e-mail as soon as possible. You have 7 days after a grade has been posted to voice your concern. After 7 days have passed, your posted grade will be assumed to be correct and accurate.

For information on current UF policies for assigning grade points, see

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

**Academic Honesty:** 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:

<https://sccr.dso.ufl.edu/process/student-conduct-code/>

**Examples of cheating:** copying the homework of a peer, copying and pasting from a source without quotations and source attribution, paying someone else to do your homework/project/exam, dividing work amongst you and your peers and then all submitting the same document, giving or receiving material from peers...

**Attendance and Make-Up Work:** 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/UGRD/academic-regulations/attendance-policies/> In general, you are expected to be in class each day and submit all work on time on e-Learning.

### **Academic Performance:**

Your grade on e-learning throughout the semester may not reflect your true performance in the course. You will have regular assignments that may require quick turnaround in this class and it is crucial that you do not "check-out" at any point in the semester. If you fall behind, you **MUST** communicate with me when you realize this is happening. Do **NOT** wait until the end of the semester as there is nothing I can do to help at that point. It is my goal to teach students and not to "give grades" as I believe grades are earned. As such, consider the following guidelines when you have questions about your grade or class performance:

- If you have any questions about your score at any point, you may come to the professor during office hours to clarify the number of points you have and what points will be required to achieve your desired grade.
- Do **NOT** ask for clarification of your grade in class or after class. This type of discussion is reserved for office hours or scheduled meetings. Please note that I cannot communicate grade information over email. All grades are posted in e-learning in a timely fashion; please let the instructor know if this is not the case.

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- Do NOT email me or come to office hours expecting to change your score on a given assignment unless an egregious error has been made in entering your grade into canvas (i.e. you failed to get credit for a completed assignment or an exam grade was entered incorrectly).
- Do NOT ask for additional points throughout the semester. It may be the case that bonus opportunities to gain additional points will be available; however, this is determined solely by the professor based on an assessment of the relevance of additional activities to course materials and learning objectives.

### **Students Requiring Accommodations**

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the [Disability Resource Center](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

### **Course Evaluation**

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students are notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

I welcome feedback on lecture style, course content, and assignments. You are always welcome to provide feedback to me via my email or in person. Periodically throughout the semester, I will email out a link to an anonymous survey to gather any feedback you may have. I try to help all of you and want this course to be the best possible learning experience for all students.

### **In-Class Recording**

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled.

The only allowable purposes are: (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

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Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

### **University Honesty Policy**

UF students are bound by The Honor Pledge: “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students 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.” The Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. [Click here to read the Conduct Code](#). If you have any questions or concerns, please consult with the instructor or TAs in this class.

### **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. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

### **Student Privacy**

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the [Notification to Students of FERPA Rights](#).

### **Campus Resources:**

#### **Health and Wellness**

*U Matter, We Care:* If you or someone you know is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu), 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.

*Counseling and Wellness Center:* [Visit the Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.

*Student Health Care Center:* Call 352-392-1161 for 24/7 information to help you find the care you need, or [visit the Student Health Care Center website](#).

*University Police Department:* [Visit UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).

*UF Health Shands Emergency Room / Trauma Center:* For immediate medical care call

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352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [Visit the UF Health Emergency Room and Trauma Center website](#).

### Academic Resources

*E-learning technical support:* Contact the [UF Computing Help Desk](#) at 352-392-4357 or via e-mail at [helpdesk@ufl.edu](mailto:helpdesk@ufl.edu).

*Career Connections Center:* Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

*Library Support:* Various ways to receive assistance with respect to using the libraries or finding resources.

*Teaching Center:* Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.

*Writing Studio:* 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

*Student Complaints On-Campus:* [Visit the Student Honor Code and Student Conduct Code webpage for more information](#).

*On-Line Students Complaints:* [View the Distance Learning Student Complaint Process](#).

**Lauren's Promise: I will listen and believe you if someone is threatening you.**

Lauren McCluskey, a 21-year old honors student athlete, was murdered on October 22, 2018, by a man she briefly dated on the University of Utah Campus. We must all take actions to ensure this never happens again. Any form of sexual harassment or violence will not be excused or tolerated at the University of Florida.

If you are experiencing sexual assault, relationship violence, or stalking, you can take the following actions:

- If you are in immediate danger, call 911.
- Report it to me, and I will connect you to resources.
- Seek confidential sources of support and help:
  - [UFPD Office of Victim Services](#): 51 Museum Road, 352-392-5648
  - [Sexual Assault Recovery Services \(SARS\)](#): Infirmary Building, 352-392-1161
  - Alachua County Rape Crisis Center (confidential): 352-264-6760

**Diversity, Equity, and Inclusion:** The University of Florida's College of Agricultural and Life Sciences (CALs) supports the University of Florida's commitment to diversity, equity, and inclusion. By fostering a sense of belonging for students, staff, and faculty, while leveraging the uniqueness of the people who study and work at the university, we believe our campus community is enriched and enhanced by diversity, including but not limited to, race, ethnicity, national origin, gender, gender identity, sexuality, class, and religion. This course will support an understanding of the diversity of our distance and campus communities as well as our agricultural and natural resource communities, locally and globally.

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This course will strive to create a learning environment for students that supports a diversity of thoughts, perspectives, and experiences while honoring your identities. In this class we will take the following approaches to help achieve this:

- All course participants will use the names and pronouns provided by students for use in class. If these differ from those that appear in official university records, you can change your Display Name at One.UF.
- If your performance in this course is being impacted by your experiences inside and/or outside the classroom, do not hesitate to contact the instructor and/or teaching assistant (TA). Instructors in CALS are a great resource for you and you may provide feedback anonymously. Feedback may result in general announcements to the class, if necessary, or reporting to appropriate UF personnel to address your concerns.
- CALS instructors and TAs like many people, are still in the process of learning about diverse perspectives and identities. If something was said in class (by anyone) that makes you feel uncomfortable, please discuss with your instructor or TA or contact the CALS Dean's Office (cals-dean@ufl.edu).

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**Tentative Course Schedule:**

Class	Day	Date	Notes	Module	Assignments	Reading
1	Th	06-Jan	Syllabus and Important Issues	1		Syllabus
2	T	11-Jan	Introduction 1: NRs & Economy	1	Module 1 due	Ch.1
3	Th	13-Jan	Building Block 1: Valuing NRs	2		Ch. 2 & supp
4	T	18-Jan	Building Block 1: Valuing NRs (cont.)	2	Sign up for RT	Ch. 3
5	Th	20-Jan	P1: Lecture by an Env. Candidate (TBA) P2: Building Block 2: Costs/Supply	2		Ch. 4
6	T	25-Jan	Building Block 3: Efficiency and Sustainability	2	Module 2 due	Ch. 5
7	Th	27-Jan	Market and Efficiency	3	Roundtable 1	Ch. 6
8	T	01-Feb	Market and Efficiency (cont.)	3		
9	Th	03-Feb	Public Policy and NRs	3	Module 3 due	Ch. 7
10	T	08-Feb	Principles of Analysis	4		Ch. 8
11	Th	10-Feb	The Evaluation of NRs	4	Module 4 due	Ch. 9
12	T	15-Feb	Mineral Economics	5		Ch. 10+supp
13	Th	17-Feb	Mineral Economics (cont.)	5		Ch. 10+supp
14	T	22-Feb	Energy Economics	5		Ch. 11+supp
15	Th	24-Feb	Energy Economics (cont.)	5	Roundtable 2	Ch. 11 supp
16	T	01-Mar	Marine Economics	5		Ch. 13+ supp
17	Th	03-Mar	Marine Economics (cont.)	5		Ch. 13+ supp
Spring Break						
18	T	15-Mar	Forest Economics	5		Ch. 12
19	Th	17-Mar	Land Economics	5		Ch. 14
20	T	22-Mar	Water Economics	5	Roundtable 3	Ch. 15
21	Th	24-Mar	Economics of Agriculture			Ch. 16
22	T	29-Mar	Economics of Outdoor Recreation	5		Ch. 17
23	Th	31-Mar	Economics of Wildlife Management	5		Ch. 18
24	T	05-Apr	Economics of Biodiversity & Preservation	5	Module 5 due	Ch. 19
25	Th	07-Apr	Natural Resource & Economic Growth	6		Ch. 20
26	T	12-Apr	Globalization and NRs	6	Module 6 due	Ch. 21
27	Th	14-Apr	Review of Resource Economics	3, 4, 5 &6	Roundtable 4	Ch. 2-21
28	T	19-Apr	Review for Final Exam	1-6		
29	Wed	27-Apr	Final Exam (7:30 - 9:30)	1-6		All

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*Note: The instructor reserves the right to change the terms and dates stated in this course syllabus at any time. Any changes will be communicated in class, via Gatorlink e-mail listserv, and posted on e-learning as an announcement. It is solely the student's responsibility to stay informed of any changes.*

*\*\*\*By enrolling in this course, you are agreeing to the terms outlined in this syllabus!!\*\*\**

**I look forward to a fun and productive semester with you all!**