

Env & Natural Resource Economics SP21

Econ 24000-01

Class meets on Monday, Wednesday and Friday

1pm-1.50pm in Morgan Hall 201

Instructor: Moses Luri, Ph.D.

Email: mluri@wooster.edu

Office: 209 Morgan Hall

Office Hrs: Tuesday 9am- 11am & Thursday 9am- 11am. Feel free to also email me to set up a meeting

Class website: <https://moodle-2021.wooster.edu/>

Course Description

In this course, we will integrate key concepts in economics with elements of political science, sociology, psychology, philosophy, and several physical sciences to provide insight into several environmental and natural resource issues of global importance. This interdisciplinary approach encourages analyses of these issues from many different perspectives.

A theoretical basis for different resource management systems will be presented including various property right structures, government institutions, and cultural and ethical aspects. Natural resource problems that have been successfully resolved and those that remain in conflict will be examined. Several case studies will be used as a mechanism for bringing the various disciplines together, and to examine the nature of natural resource management.

We will examine resource questions focused on different jurisdictional levels: local, regional and global. Each of these scales will shed light on some resource management of global importance. Local issues are specific to a localized area, but similar concerns exist in many areas, that is, local issues may have wide-reaching ramifications. Regional concerns include resource issues that arise due in part to the trans-boundary nature of the issue. Many institutions may share in the management of the resource. Global issues include those concerns that affect many regions and require a global approach to management.

Main Course Topics

1. Economic methods used by environmental economists
2. Specific topics in natural resource economics
3. Pollution control and policies
4. Visions for the future

Learning Goals

1. Assess and explain the economic aspects of environmental and natural resource issues.
2. Apply analytical tools (mathematical and graphical) to explain the extent to which these issues constitute economic "problems".
3. Identify and evaluate "successful" environmental and natural resource management situations and also resource conflicts and the aspects that contribute to the definition and degree of successful management.

Textbook and Course Material

The required textbook for this course is *Environmental and Natural Resource Economics 11th Edition* by Thomas H. Tietenberg and Lynne Lewis (2018, Routledge). You may also use the 10th edition of the required textbook.

We will also read some key articles from the environmental and natural resource economics literature as well as articles from the popular press. Multimedia resources including TED talks and other relevant videos will also be assigned and these will be made available on Moodle. You will be notified when this happens.

Course Format and Assignments

A detailed course outline begins on Page 5. Learning any material well requires active engagement. I would like you to view me as a facilitator of your learning process: In class, I will explain new concepts, discuss important points, and add context to the assigned material. Importantly, I want you to view the class as an ongoing informed and engaged discussion with me and your classmates.

Familiarize yourself with the information in the assigned readings prior to class. Engagement with the material during class will reinforce your learning. If something is unclear or you need additional help, please ask, in class, my office hours or just email me.

This course is a nearly 15-week semester-long course, yet it will move at an accelerated pace. It is important to keep up with the readings and materials. The assignments, quizzes, participation grade, midterm, case analysis and final are all designed to incentivize and reinforce your learning.

- **Readings and Discussion:** This will be the main means of exploring the details of the topics assigned in the course. Each class meeting will include exploration environmental or a natural resource issues based on chapter and/or other assigned readings, and all students are expected to participate in the discussion in class. Each student will also be expected to initiate and lead a brief discussion of one topic from current events related to the issues, concepts, tools or solutions examined in the course. Readings at the beginning of the course will focus more on our primary text, with supplemental readings playing a relatively larger role toward the end of the course.
- **Power Point-based lectures will be used to introduce concepts and help start discussions**

- **Quizzes (3):** Quizzes will be non-cumulative, dates to be determined. The quizzes will be some multiple choice, short answer, true/false, matching type questions to help assess understanding of material covered (specifically, explained concepts, terms, etc)
- **Problem sets (4):** Four problem sets will be given in this course. Assignment descriptions and due dates will be made available on Moodle during the semester. Answers to assignments may be typed or handwritten but must be submitted individually. If you choose to handwrite your assignments, only submit CLEAR pictures of your work on Moodle. All assignments must be submitted on Moodle. Note: assignments may require you to do a discussion, perform computations, solve simple equations and/or sketch and explain graphs. Students may also be required to work in groups of 2 or 3 on assignments.
- **Final Exam:** Think of this more as a mix of the problem sets and quizzes, as it will include conceptual, computational, and critical thinking. The Final will be slightly cumulative but will focus primarily on those topics not covered in the earlier quizzes and problem sets.
- **Paper:** Each student will be required to write a short paper for this course due on the last day of class. the short paper will be an applied piece of research on an environmental or natural resource challenge of interest to you. You will have a structured outline (posted on Moodle), and we will take some time mid-course for each of you to tell the class about your topic / issue so the rest of us can give you some feedback and ideas to help you along.

Attendance (Remote)

Students are expected to join in remotely for class via teams, at least for the first two weeks of class. An announcement will be made in class regarding hybrid class sessions whenever the College advises on that. For students who may not be able to join in synchronously for class because of time differences or some other reason, the instructor will be happy to help figure out some arrangement that fits the student needs. Further adjustments may be made to this class to accommodate any unanticipated developments as the semester progresses.

Course Management Tools: Moodle, Teams, Poll Everywhere & Flipgrid

Moodle: This course will be managed primarily using Moodle. Course material and information including the syllabus, assignments, quizzes, videos, reading material, grades, class news and announcements, and any other useful resources will be posted on Moodle. I encourage you to visit Moodle regularly to access course information. Feel free to send me an email if have any questions.

Teams: We will use teams to hold classes, office hours and group discussions. To attend office hours, students are advised to email the instructor to schedule a meeting time preferably a day ahead. Students may also email the instructor to schedule meetings outside office hours. To facilitate group discussion and the spirit of teamwork, students will be put in groups of 3 or 4 by the end of the first week of class. Each group will have a channel on teams where the group will hold discussions and work together during class breakout sessions. The instructor

will float around pop in into different channels to answer questions and monitor group discussions. [More on this in class]

Poll Everywhere: To facilitate participation in class, students will regularly be asked to respond to questions posted on “Poll Everywhere” – an online application that summarizes responses and outputs results in real time. Students will submit responses using a phone or computer. [We will test-run this in class].

Flipgrid: We will use flipgrid to record and share short (one minute) videos of ourselves addressing different issues. Occasionally, these may just be fun videos of us doing fun things.

Grading Policy

Your grade is based on the weighted average of your scores from the following components. You are expected to complete all work assigned in the course, regardless of whether you take this course A-F or S-NC

Percentage breakdown of final course grade

Class discussion and exercise	10%
Quizzes (3 @ 10% each)	30%
Problem sets (4 @ 5% each)	20%
Paper	15%
Final Exam	25%
Total	100%

Grades will follow the scale: A = 100 – 93; A- = 92.99 – 90; B+ = 89.99 – 87; B = 86.99 – 83; B- = 82.99 – 80; C+ = 79.99 – 77; C = 76.99 – 73; C- = 72.99 – 70; D = 69.99 – 60; F= <59.99.

Tentative Course Schedule

<u>Week</u>	<u>Week beginning</u>	<u>Tentative Topics</u>	<u>Readings</u>	<u>Problem sets and Quizzes</u>
		Economic methods used by environmental economists		
1	Mon.1.18	Introduction of Syllabus Visions for the future	Ch.1	
2	Mon.1.25	The Economic Approach: Property Rights, Externalities, and Environmental Problems	Ch.2	
3	Mon.2.01	Evaluating Trade-Offs: Benefit–Cost Analysis and Other Decision-Making Metrics	Ch.3	PS 1 --- Wed. Feb, 4
4	Mon.2.08	Valuing the Environment: Methods	Ch.4	PS 2 --- Wed. Feb, 10
5	Mon.2.15	Dynamic Efficiency and Sustainable Development Depletable Resource Allocation: The Role of Longer Time Horizons, Substitutes, and Extraction Cost	Ch.5 Ch.6	 Quiz 1 --- Friday, Feb 19.
		Specific topics in natural resource economics		
6	Mon.2.22	Energy: The Transition from Depletable to Renewable Resources	Ch.7	
7	Mon.3.01	Recyclable Resources: Minerals, Paper, Bottles, and E-Waste Water: A Confluence of Renewable and Depletable Resources	Ch.8 Ch.9	PS 3 --- Wed. Mar, 03
8	Mon.3.08	A Locationally Fixed, Multipurpose Resource: Land Storable, Renewable Resources: Forests	Ch.10 Ch.11	
9	Mon.3.15	Common-Pool Resources: Commercially Valuable Fisheries	Ch.12	PS 4 --- Wed. Mar, 17
10	Mon.3.22	Ecosystem Goods and Services: Nature's Threatened Bounty	Ch.13	Quiz 2 --- Friday, Mar 26.
		Pollution control and policies		
11	Mon.3.29	Economics of Pollution Control: An Overview Stationary-Source Local and Regional Air Pollution	Ch.14 Ch.15	
12	Mon.4.05	Climate Change	Ch.16	
13	Mon.4.12	Mobile-Source Air Pollution Water Pollution	Ch.17 Ch.18	Quiz 3--- Friday, Apr 16.
		The future		
14	Mon.4.19	The quest for sustainable development Visions for the future revisited	Ch.19 Ch.21	
15	Mon.4.26	Final Exam Review		Paper due
16	Mon.5.3	Final Exam		

Disclaimer

All of the information in this course syllabus is subject to change when deemed necessary by the instructor. You will be notified verbally in class, via posts on Moodle, or by email if such changes occur.

Academic Honesty and the Code of Academic Integrity

The academic program at the College seeks to promote the intellectual development of each student and the realization of that individual's potential for creative thinking, learning, and understanding. In achieving this, each student must learn to act rigorously, independently, and imaginatively.

The College's understanding and expectations in regard to issues of academic honesty are fully articulated in the Code of Academic Integrity as published in [The Scot's Key](#) and form an essential part of the implicit contract between the student and the College. The Code provides framework at Wooster to help students develop and exhibit honesty in their academic work. You are expected to know and abide by these rules.

Dishonesty in any of your academic work is a serious breach of the Code of Academic Integrity and is ground for serious penalties. Such violations include turning in another person's work as your own, copying from any source without proper citation, violating expectations for a group project, submitting an assignment produced for a course to a second course without the authorization of all the instructors, and dishonesty in connection with your academic work. You will be held responsible for your actions. Particular attention should be directed to the appropriate use of materials available online. Whether intentional or not, improper use of materials is a violation of academic honesty. If you are unsure as to what is permissible, please contact your course instructor.

Course Materials & Recording of Classes

The materials on this course and shared on the Moodle site are only for the use of students enrolled in this course for purposes associated with this course and may not be further distributed.

Some of our discussions, whether held online or face-to-face, may be recorded this semester. These sessions will allow students who miss class to keep up with the course. The video and audio recording and other course materials are to be used for educational purposes only and are meant only for students currently enrolled in the course. No one should distribute recordings, screenshots, or other class material beyond class without the express permission of all involved in the recording. College classrooms are places to test out new ideas, challenge assumptions, and engage timely and sometimes sensitive issues. Students who enter this space should be able to do so with the assurance that their comments will not be shared beyond the classroom.

On occasion I plan to record class discussions so that students who miss class can access them at a later time, I will inform those participating in person and/or remotely, and offer options for participation to protect student privacy, such as:

- Participating remotely with video camera turned off
- Participating in the Chat (which is not recorded)

All recordings will be posted only on password-protected websites (such as Moodle, Teams or Stream) that are only available to course participants and for the duration of the course.

Conflicts with Academic Responsibilities

The College of Wooster is an academic institution, and its fundamental purpose is to stimulate its students to reach the highest standard of intellectual achievement. As an academic institution with this purpose, the College expects students to give the highest priority to their academic responsibilities. When conflicts arise between academic commitments and complementary programs (including athletic, cultural, educational, and volunteer activities), students, faculty, staff, and administrators all share the responsibility of minimizing and resolving them.

As a student you have the responsibility to inform the faculty member of potential conflicts as soon as you are aware of them, and to discuss and work with the faculty member to identify alternative ways to fulfill your academic commitments without sacrificing the academic integrity and rigor of the course.

Final Examinations

No final examinations are to be given during the last week of classes or on reading days. Students who wish to reschedule a final exam must submit a petition the Dean for Curriculum and Academic Engagement in advance of the examination. The student must confer with the instructor before submitting a petition, and the instructor should indicate to the Dean if they support the petition. Normally, such petitions are granted only for health reasons. If other reasons necessitate a request for a change in a final exam, the request must be submitted three weeks in advance of the examination. [Find electronic petition forms on the Registrar's website.](#)

Pass/Fail & Course Drop Options (for Fall 2020)

Pass-Fail Policy:

The College is temporarily broadening the policies on electing a pass-fail grading structure

- Students may elect a Pass-Fail grading option for any course (including those in a major/minor)
- Special note on transcript noting unique policy changes specific to Fall Semester 2020 regarding pass-fail counting toward the major.
- Students may elect as many courses as they wish on a Pass-Fail grading structure. Courses elected as Pass-Fail for Fall Semester 2020 will not count toward the maximum number of Pass-Fail courses that a student may take at Wooster.

The deadline for electing a Pass-Fail grading option is Friday, December 18 @ 12:00PM.

Course drop policy:

The College is temporarily extending the deadline for dropping a course. For Fall Semester 2020: Students may drop any course by Tuesday, November 24 @ 4:00PM. The minimum enrollment of 3.0 credits remains in effect. Requests to drop enrollment below 3.0 credits will require additional documentation via "[Other academic petitions.](#)"

[Learning Center: Academic Support and Disabilities](#)

Contact: Amber Larson, alarson@wooster.edu, (330)263-2595, [LC website](#)

The Learning Center also coordinates accommodations for students with diagnosed disabilities. At the beginning of the semester, students should contact the Learning Center to make arrangements for securing appropriate accommodations. Although the Learning Center will notify professors of students with documented disabilities and the approved accommodations, students are encouraged to speak with professors during the first week of each semester. If a student does not request accommodations or does not provide documentation to the Learning Center, faculty are under no obligation to provide accommodations.

[The College Libraries and the Research Help Desk](#)

Contact: library@wooster.edu, 330-263-2493, [Libraries website](#)

Your librarian for this course is Mark Gooch. You can ask your librarian for help with research in this class and can make an appointment with them using the [research consultation form](#) for help with your research and information needs, including finding and using items we have in the Libraries; learning expert tips to refine your search for articles in magazines, journals, and newspapers; making an appointment with a librarian for help on a project; and learning how to evaluate the information you discover.

[Inclusive Learning Statement](#)

Your success in this course is important to me. If there are circumstances that may affect your academic performance or impact your learning in particular portions of the class, please let me know as soon as possible. You do not need to share specifics, but together we can develop strategies to meet both your needs and the requirements of the course.

I encourage you to visit the [Learning Center](#) to determine how you could improve your learning as well. If you need official accommodations, you have a right to have these met. There are also a range of resources on campus, including the [Writing Center](#), [Math Center](#), [STEM Success Initiative](#), and [APEX for Academic & Career Support](#).

[Names, Pronouns & Pronunciation](#)

All people have the right to be addressed and referred to as they prefer. I will do my best to address and refer to all students by the names and pronouns that they share in class, regardless of what is listed on the roster, and I support classmates in doing so as well. I would like for you to refer to me as Professor Luri I use [they/them/their] pronouns. Please share the name you prefer to be called and pronouns you wish to use in this class with me via classroom introductions or privately.

If you are interested in changing your chosen name and/or including your pronoun(s) in The College of Wooster system, [you can find additional information here](#). What appears in The College of Wooster system is what will display in all platforms across Microsoft Teams and Zoom. There is no alternative way to change your name or to add pronouns in Teams, but you can add a

background that includes these to both Teams and Zoom. For instructions on designing a personalized background, see <https://www.wooster.edu/offices/sqi/pronouns/pronouns-virtually/>.

I encourage everyone in this classroom to create a space of mutual respect and support by also giving each other some grace around pronouns, pronunciation of names, etc., if or when we make mistakes. This is not at all to absolve anyone of responsibility for using correct pronouns, names, and pronunciations. But I find it useful to acknowledge that even with the best of intentions, sometimes we can all still make mistakes.

For myself, although I always attempt to pronounce students' and colleagues' names correctly, since I wasn't raised speaking all of their native languages, I know I still often come up short. I appreciate gentle corrections on pronunciation, but even then, I sometimes still struggle to form the right sounds. Most friends are very generous with me, but I know that it must be frustrating to consistently hear your name mispronounced. Ultimately what is most important to me in the classroom (and really anywhere) is NOT that none of us ever make mistakes or ask questions about experiences that are different from our own—in fact, we learn a lot from doing both—but that we each commit to making a concerted effort to be inclusive and respectful ... and do our best to help each other achieve that joint goal in supportive ways.

[Title IX Reporting Policy Regarding Sexual Misconduct, Harassment, Relationship Violence, and Stalking](#)

Contact: Lori Makin-Byrd, lmakin-byrd@wooster.edu, (330) 263-2017, [Title IX website](#)

The College of Wooster is committed to fostering a campus community based on respect and nonviolence. To this end, we recognize that all Wooster community members are responsible for ensuring that our community is free from discrimination, gender bias, sexual harassment, and sexual assault. In accordance with Title IX, Wooster is legally obligated to investigate incidents of sexual harassment and sexual assault that occur on our campus. Faculty who become aware of an incident of sexual violence, including harassment, rape, sexual assault, relationship violence, or stalking, are mandated reporters at the College and are required to notify Wooster's Title IX Coordinator. The purpose of this disclosure is to ensure that students are made aware of their reporting options and resources for support. For more information about your rights and reporting options at Wooster, including confidential and anonymous reporting options, please visit <http://www.wooster.edu/offices/title-ix/>.

[Discriminatory or Bias-Related Harassment Reporting Policy](#)

Contact: Ivonne García, igarcia@wooster.edu, [Bias Reporting website](#)

The College of Wooster is committed to promoting its mission of inclusivity and equity in all aspects of the educational enterprise. This commitment extends to all rights, privileges, programs and activities, including housing, employment, admissions, financial assistance, and educational and athletic programs at the College. The College's Bias Incident Reporting Process is

designed to effectively respond to bias concerns raised by faculty, students, staff, alumni and visitors to the College. If you or someone you know are the victims of bias, you can:

- [File a report online](#) (where you may choose to identify yourself or not)
- Contact Security and Protective Services: 2590 (from campus phone) or 330-263-2590
- Call the Anonymous Tip Line: 2337 (from campus phone) or 330-263-2337
- Contact the Dean of Students Office: 2545 (from a campus phone) or 330-263-2545
- Contact the Chief Diversity, Equity, and Inclusion Officer, Dr. Ivonne M. García, 2167 (from campus phone) or 330-263-2167 or email at igarcia@wooster.edu.

[Well-being at Wooster](#)

Contact (24/7): (330) 263-2319, or visit the [Wellness Center website](#)

The College of Wooster is committed to supporting the well-being of our students. During the course of their academic careers, students experience challenges that contribute to barriers in learning and can interfere with daily life, including but not limited to: strained relationships, adjusting to a new environment, chronic worrying, persistent sadness or loss of interest in enjoyable activities, family conflict, grief and loss, domestic violence, unwanted sexual experiences, difficulty concentrating, drug/alcohol problems, significant changes in eating and sleeping patterns, microaggressions, challenges with organization, procrastination and/or lack of motivation. Counseling Services at the Longbrake Student Wellness Center is a free and confidential resource providing short-term counseling and connections to community agencies for students needing longer term or specialized resources. You can make an appointment by calling 330.263.2319 between 8:30am-4:30pm during weekdays or by emailing Lori Stine (lstine@wooster.edu). You can also find helpful resources on the Counseling Services website at <https://www.wooster.edu/offices/health/counseling/>.

If you or a friend is in crisis, please call Security and Protective Services at 330-287-3333 or the National Suicide Prevention Lifeline (1-800-273-TALK) or connect with the Crisis Text Line by Texting "4HOPE" to 741-741.

For financial concerns: Dean of Students Office, dos@wooster.edu (330) 263-2545, [DoSwebsite](#)

For safety concerns: Campus Security and Protective Services (330)263-2590 or cow-security@wooster.edu, [SPS website](#). In the care of an emergency, call: 330-287-3333.

[Language for Sensitive Content](#)

Taking Care of Yourself: In this course, we will be discussing sensitive topics such as race. The course content may elicit strong reactions from some students, and it is understandable that some may feel uncomfortable discussing these issues in class. Although you are not expected to share personal information in

class, discussing these issues as a group is unavoidable. Please take the time to care for yourself. If you are struggling with personal issues, or find the content of course overwhelming, please seek assistance at the College of Wooster [Wellness Center](#).

I also encourage you to speak with me. You do not need to share why the topic may be overwhelming, but by alerting me that you may not be able to participate during particular discussions, we can then work together to find alternate ways for you to share their ideas instead of verbally expressing them in class.