

ECONOMICS 5250/6250
Fall 2019

Professor Lozada
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CLASS MEETING TIME & PLACE: MW 9:40 AM–11:35 PM in Gardner Commons room 3640. However, each meeting time needs to be shortened from 115 minutes to 80 minutes. On the first day of class I will propose a 9:40–11:00 meeting time.

REQUIRED TEXT: *Economics of Natural Resources and the Environment*, by David W. Pearce and R. Kerry Turner. ISBN: 9780 8018 3987 0.

Old exams are available at www.economics.utah.edu/lozada (click on “Econ. 5250”).

COURSE DESCRIPTION: Air, water, and ground pollution; public policies to reduce pollution (including taxes, quotas, and tradable permits); destruction, valuation, and protection of natural environments and the species within them. The United States and other nations are considered. Also exploitation and depletion of nonrenewable energy and mineral resources; equity between different human generations; natural reproduction and human harvesting of fish and trees; extinction of species; entropy, thermodynamics, and the prospects for perpetual economic growth. Prerequisite: “C-” or better in ((ECON 3620 or MATH 1100 or MATH 1210 or MATH 1310 or MATH 1250 or MATH 1311)) or AP Calculus AB score of “3 or better” or AP Calculus BC score of “3 or better.” Recommended Prerequisite: ECON 4010.

COURSE OVERVIEW: We will first study environmental economics, which is the economics of pollution: why do firms pollute, how much ought they pollute, and various ways of bringing their pollution closer to the socially optimal level. We will next study natural resource economics, which is the economics of resource depletion: how do firms decide how much of a renewable resource (e.g., fish) or an exhaustible resource (e.g., copper) to extract each year, how much ought they extract, and various ways of bringing their extraction closer to the socially optimal level if it is not there already. We will finally study some non-neoclassical approaches to pollution and resource depletion.

COURSE OBJECTIVES: For you to understand the neoclassical microeconomic theory of pollution and depletion; limitations and critiques of that theory; and some appreciation of non-neoclassical approaches to these issues.

Note with British economist Joan Robinson (*Collected Economic Papers*, 1980, Vol. 2 p. 17):

“The purpose of studying economics is not to acquire a set of ready-made answers to economic questions, but to learn how to avoid being deceived by economists.”

COURSE WORKLOAD: This is a 3 credit hour course. According to the University of Utah’s Policy 6-100 III Sec. C6, (see www.regulations.utah.edu/academics/6-100.html), “It is generally expected throughout the University that there is at least one hour in class and two hours outside of class per week [or the equivalent combination] connected to every credit hour for the appropriately prepared student.” (brackets added). So you should expect to study for Econ. 4010 about 6 hours outside of class every week.

MY BACKGROUND: My current rank is Associate Professor. I hold a BA degree in Economics and a BS degree in Physics, both from Louisiana State University. I hold an MS degree in Engineering-Economic Systems, an MA degree in Economics, and a PhD degree in Economics, all from Stanford University. My main area of research is the microeconomic theory of sustainability, applied mostly to exhaustible resource industries but also to personal financial sustainability over the lifecycle. I regularly teach microeconomic theory at the undergraduate and PhD levels, and resource and environmental economics at the introductory, advanced undergraduate, and advanced PhD levels. I have also taught Mathematical Economics at the PhD level. My Ph.D. students have written dissertations on such topics as the structure of oil auctions in Russia; the brine shrimp industry of the Great Salt Lake; the influence of language (“framing”) on citizen opinions about environmental controversies; and methods which peasants in India use to cope with environmental disasters and with problems requiring social cooperation.

OFFICE HOURS: Assuming the class accepts my suggestion of a 9:40–11:00 meeting time, my office hours this semester will be just after this class, until 11:40am. You may also make an appointment to see me. In addition, you can stop by my office without an appointment at any time, and if I am not being pressured by other work I will make time then to answer your questions.

GRADING: There will be a midterm exam worth 33 points and a comprehensive final exam worth 67 points. Your course grade will be based on the sum of the grades you make on the two exams. The midterm will cover Chapters 4–11 and 13–15; the final will cover the midterm chapters plus Chapters 16–19, 22, and 1–3. Chapters 20 and 21 will only be covered on the final if I have time to teach them at the end of the semester.

You should bring a blue book to the exams.

At the end of the semester, your course grade will be based on the sum of the grades you have made on the two exams. It will not be based on anything else: there is no way to do “extra work” at the end of the semester to raise your grade.

If you make above an 80% you are guaranteed to make an A–; if you make above a 65% you are guaranteed to make at least a B–; if you make above a 50% you are guaranteed to make at least a C–; and if you make above a 35% you are guaranteed to make at least a D–. Notwithstanding this scale, if the following curve resulted in higher grades then I would use it (approximately, not rigidly): 15% A or A–, 35% B+ or B or B–, 35% C+ or C or C–, 10% D+ or D or D–, 5% E.

TENTATIVE SCHEDULE:

- 8/19: Chapter 4 (“The Optimal Level of Pollution”)
- 8/21: Chapter 5 (“The Market Achievement of Optimal Pollution”)
- 8/26: Chapter 6 (“Taxation and Optimal Pollution”)
- 8/28: Chapter 7 (“Environmental Standards, Taxes and Subsidies”)
- 9/4: Chapter 8 (“Marketable Pollution Permits”)
- 9/9: Chapter 9 (“Measuring Environmental Damage I: Total Economic
: Value”)
- 9/11: continuation of Chapter 9; Chapter 10 (“Measuring Environmental
: Damage II: Valuation Methodologies”)
- 9/16: continuation of Chapter 10
- 9/18: Chapter 11 (“Pollution Control in Mixed Economies”)
- 9/23: Chapter 13 (“Global Pollution Policy”)
- 9/25: Chapter 14 (“Discounting the Future”)
- 9/30: continuation of Chapter 14
- 10/2: Chapter 15 (“Environmental Ethics”)
- 10/14: Midterm Exam’s approximate date
- 10/16: Chapter 16 (“Renewable Resources”)
- 10/21: continuation of Chapter 16
- 10/23: Chapter 17 (“The Extinction of Species”)
- 10/28: Chapter 18 (“Exhaustible Resources”)
- 10/30: continuation of Chapter 18
- 11/4: Chapter 19 (“Measuring and Mitigating Natural Resource Scarcity”)
- 11/6: continuation of Chapter 19
- 11/11: Chapter 22 (“Environment and the Developing Countries”)
- 11/13: continuation of Chapter 22
- 11/18: Chapter 1 (“The Historical Development of Environmental Economics”)
- 11/20: continuation of Chapter 1

11/25: continuation of Chapter 1; Chapter 2 (“The Circular Economy”)
11/27: continuation of Chapter 2; Chapter 3 (“The Sustainable Economy”)
12/2: continuation of Chapter 3
12/4: Either Chapters 20 (“Development, Preservation and Conservation”) and 21
: (“A Case Study of Wetlands”) if there is still time to teach them;
: or, more likely, readings of H. Daly or N. Georgescu-Roegen.
Thursday Dec. 12, 2019: Final Exam from 8:00 am–10:00 am.

COURSE POLICIES (and other characteristics):

1. You cannot miss an exam and take a makeup exam unless I give you permission to do so. Without my permission, you will earn a zero on any exams which you miss.

To get my permission to take a makeup exam, you must give me notice before the class takes its exam (if at all possible), and before you take the makeup exam, you must supply written evidence of your reason for missing the in-class exam. If the reason is illness, a note from a doctor will be sufficient.

I will let you know if I think your reason is good enough to warrant letting you take a makeup exam. If your reason is that you are participating in a university-sponsored activity, I will always allow you to take a makeup. Otherwise, I will make the decision on a case-by-case basis.

In addition, there are limited circumstances in which I may let you take an exam early.

The final exam will be on the date given in the schedule at the end of this syllabus. If you have a schedule conflict (for example, with your job), resolve it now. I will only give a makeup final after the regularly scheduled final if: (a) circumstances beyond your control (such as illness or a car breakdown or the death of a close relative) prevented you from taking the final; and (b) you notified me as soon as you could, and you later supplied proof acceptable to me of what happened; and (c) the circumstances you cite were sufficient in my view to justify your missing the final.

2. Canvas: We will not be using Canvas in this class. See the web site at the URL near the top of page 1 for more information.
3. Attendance policy: None. (However, past students who missed lots of class tended to do poorly.)
4. Late assignments: This class has no mandatory assignments.

5. Teaching and Learning Methods: Lectures and working homework problems and old exam questions.

UNIVERSITY POLICIES AND INFORMATION:

1. Incompletes will be given only for reasons of illness or a family emergency. You must supply written evidence for the reason. According to university regulations (Policy 6-100 III G2), you must be passing the class at the time you get an incomplete.
2. Cheating on exams and other forms of academic dishonesty may lead to expulsion from the class, failure of the class, or more severe penalties. In accordance with University regulations (University Policy 6-400, Section V, "Academic Misconduct," B4), if you are caught cheating in this class, I must send a letter to your dean about that, and the letter will be put in your permanent University file. I have done this for several students already, so don't cheat.
3. All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, available at www.regulations.utah.edu/academics/6-400.html. Students have specific rights in the classroom as detailed in Section II of the Code. The Code also specifies proscribed conduct (Sections III and V) that involves cheating on tests, plagiarism, and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully and know they are responsible for the content. Students have the right to appeal sanctions imposed under the Code to the Student Behavior Committee.
4. ADA Statement: The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Union Building, (801) 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability Services.
5. Addressing Sexual Misconduct: Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability, and victims are entitled to the same kinds of support, as in the cases of offenses against persons in other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic makeup. If you or someone you know has been harassed or assaulted,

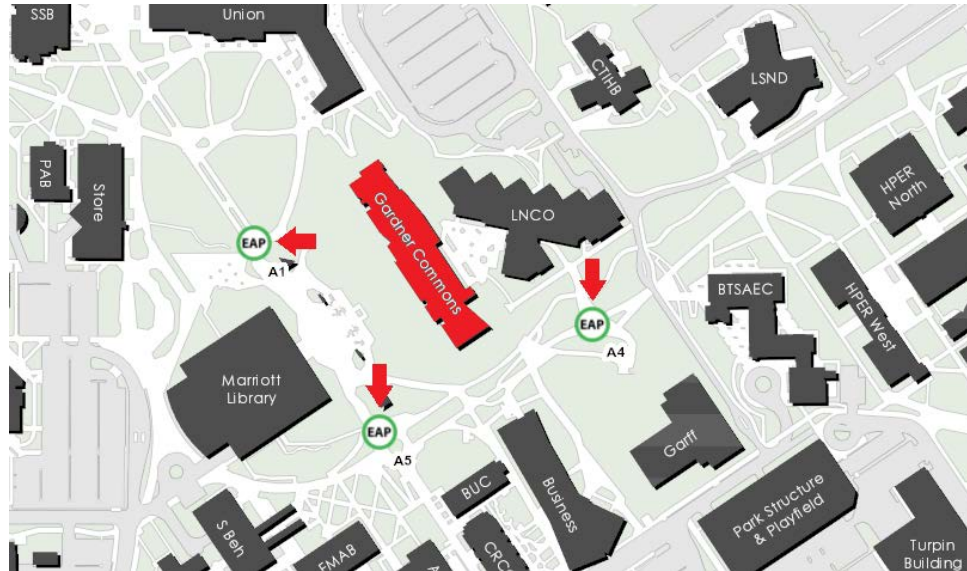
you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, SSB 328, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

6. **Campus Safety:** The University of Utah values the safety of all campus community members. To report suspicious activity, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu. In cases of domestic violence or the threat of domestic violence (including intimate partner danger in a dating relationship), another source of assistance is the Utah Domestic Violence Coalition, whose phone number is 800-897-5465. (Inclusion of the previous sentence in U of U syllabi was recommended by Washington State University Prof. Jill McCluskey, whose daughter was a U of U student murdered on the U campus in 2018 by a man she had dated.)
7. **Undocumented Student Support:** The Dream Center offers a wide range of resources to support undocumented students (with and without DACA) as well as students from mixed-status families. To learn more, please contact the Dream Center at 801-213-3697 or visit dream.utah.edu.
8. **Wellness statement:** Personal concerns such as illness, stress, anxiety, relationship difficulties, and depression can interfere with a student's ability to succeed at the University of Utah. For helpful resources contact the Center for Student Wellness at www.wellness.utah.edu or 801-581-7776. Also be aware that academic advisors can help students in many ways, including trying to protect or rehabilitate their GPAs, during and after a personal crisis.
9. If you receive a notification to evacuate during this class either by the campus text alert system or by a building fire alarm, please proceed in an orderly fashion to the Emergency Assembly Point ("EAP") marked "A5" on the map later in this document. If you cannot reach the A5 EAP, go to the A4 EAP; if you cannot reach it either, go to the A1 EAP. Once everyone is at the EAP, you will receive further instructions from Emergency Management personnel. If you are taking an exam when the evacuation order comes, *immediately* stop working on the exam and leave the exam, your answers to it, and any other exam material on your desk.

For further information about the Campus Alert System, including instructions to ensure your cell phone will receive emergency alerts, see <http://www.campusalert.utah.edu>. That web site has a link to a “Shots Fired” training video which “discusses some things that any student, faculty, staff or administrator can do to perhaps prevent a fatal shooting.” To see the video, you have to be connected to the internet via a U of U network (for example, UConnect WiFi or a campus computer lab).

Note. You may find a description of my responsibilities at www.regulations.utah.edu/academics/6-316.html.

CSBS EMERGENCY ACTION PLAN



BUILDING EVACUATION

EAP (Emergency Assembly Point) – When you receive a notification to evacuate the building either by campus text alert system or by building fire alarm, please follow your instructor in an orderly fashion to the EAP marked on the map below. Once everyone is at the EAP, you will receive further instructions from Emergency Management personnel. You can also look up the EAP for any building you may be in on campus at <http://emergencymanagement.utah.edu/eap>.



CAMPUS RESOURCES

U Heads Up App: There's an app for that. Download the app on your smartphone at alert.utah.edu/headsup to access the following resources:

- **Emergency Response Guide:** Provides instructions on how to handle any type of emergency, such as earthquake, utility failure, fire, active shooter, etc. Flip charts with this information are also available around campus.
- **See Something, Say Something:** Report unsafe or hazardous conditions on campus. If you see a life threatening or emergency situation, please call 911!

Safety Escorts: For students who are on campus at night or past business hours and would like an escort to your car, please call **801-585-2677**. You can call 24/7 and a security officer will be sent to walk with you or give you a ride to your desired on-campus location.