-Hyperlinks in electronic versions of this document are clickable-

ECONOMICS 3250 Spring 2021 Professor Lozada Gardner Commons, Rm. 4030 Phone: (801) 581-7650 lozada@economics.utah.edu www.econ.utah.edu/lozada

CLASS MEETING TIME and PLACE: 2:00–3:20 TTh, online on Zoom (see Zoom class meeting link on Canvas). However, substantial material will be delivered asynchronously via pre-recorded videos. The final exam will be at 1:00–3:00 pm on Monday May 3.

TEXT: Environmental Economics: An Elementary Introduction, by R. Kerry Turner, David Pearce, and Ian Bateman. Johns Hopkins University Press. ISBN 0-8018-4863-6.

Old exams are available at www.econ.utah.edu/lozada (click on "Econ. 3250").

COURSE DESCRIPTION: We will study the way firms use the natural environment; externalities; the effects of different types of government regulation on firm behavior, consumer welfare, and the natural environment (including plants and animals); the ethics of resource depletion; and environmental degradation in developing countries. This course has no prerequisites, either in Economics or in Mathematics. As an alternative to this course, Econ. 5250 is available for students (mostly Economics majors) who meet its prerequisite requirements and who desire a significantly more mathematical coverage of these topics.

COURSE OVERVIEW: We will cover the economic causes of environmental degradation; economic decision-making and the environment; methods of business regulation which governments can use to protect the environment; depletion by firms of renewable and non-renewable natural resources, and whether such depletion is appropriate or not; the application of these general considerations to specific environmental problems; and non-orthodox economic approaches to environmental destruction and resource exhaustion.

TENTATIVE SCHEDULE:

Although the following schedule is tentative, I will always give you at least one week's notice of the *exact* date of your exams.

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Dates
                Chapters
     1/19, 1/21: 5 (How Markets Work and Why They Fail)
     1/26, 1/28: 6 (How Governments Fail the Environment), 7 (Cost-Benefit Thinking)
   2/2, 2/4, 2/9: 8 (Valuing Concern for Nature), 9 (Coping With Uncertainty)
     2/11, 2/16: 10 (Using the Market to Protect the Environment)
2/18, 2/23, 2/25: 11 (Charging for Use of the Environment), Exam 1 (Chs. 5–11)
       3/2, 3/4: 12 (Green Taxes), 13 (Trading Environmental Permits)
            3/9: 14 (Setting Environmental Standards)
           3/11: 15 (Renewable Resources)
3/16, 3/18, 3/23: 16 (Non-renewable Resources), 17 (Business and the Environment)
          3/25: 18 (Managing Waste)
      3/30, 4/1: Exam 2 (Chs. 12–18); 19 (Climate Change)
       4/6, 4/8: 20 (Economics and the Ozone Layer), 21 (Conserving Biological Diversity)
          4/13: 22 (International Environmental Policy: Acid Rain), 23 (Environment
                     in the Developing World)
          4/15: 1 (The Big Economy), 2 (Environment and Ethics)
          4/20: 3 (Economic Growth, Population Growth, and the Environment),
                     4 (Sustainable Development)
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Monday May 3: comprehensive Final Exam from 1:00–3:00 pm

I may give you some additional readings in mid- to late April.

PANDEMIC-RELATED EXAM PROCEDURES

The exams in this class will be the same sort that I have given when I teach in person, namely, they will be non-multiple-choice and have "short answer/essay" types of questions. They will probably be **closed-book exams**, meaning you will not be allowed to get help during your exams from the internet or notes or books or other people; but if I decide to make an exam open-book, you would be able to use anything on the class web site, your notes, the textbook, the internet, and so forth, though you still would not be allowed to communicate with anyone except for me during the exam. The exams will be closed-book unless I give you one week's notice that the exam will be open-book and unless the first page of the exam says "This is an open-book exam."

You will need a working e-mail connection in order to receive the exam and in order to send it to me. You will also have to use either your smartphone or a computer and scanner to prepare your answers for being sent to me. However before these "beginning of exam" or "end of exam" activities, you should not be using any sort of computing device, except if you have to display the exam on your computer screen because you do not want to print it out.

I have to be able to proctor the exams, so you must have your Zoom video feed on during the entire exam "process," which includes the exam and the time required to scan or take pictures of your exam and send them to me. I would like you to install Zoom on your smartphone, so that during the exams, your smartphone can send me a video feed showing you and your computer screen. Test that your smartphone can function in this way well before the day of the first exam.

More exam rules (and a few repetitions):

- Turn on your smartphone Zoom video feed so I can see you and your computer screen as you work.
- You can call me on my landline at 801-883-0134 if you have questions.
- Take your exam using black ink.
- Write nothing within about 1/8 inch of the edges of the paper.
- Do not put the answer to more than one question on a single sheet of paper.
- Make sure that each of your answer pages has the question number on it near the top. For example, "Qu. 3" or "Qu. 2 continued" or "Qu. 3 page 2."
- You should send me your exam in the form of a single PDF file. Arrange your answer sheets in the correct numerical order before preparing the file.
- Put your name on the first page of your exam.
- E-mail the finished PDF file to lozada@economics.utah.edu.

Scanning instructions over →

• Retain your original paper copy of your answers in case there are legibility problems. You may have to mail me the originals, though this is not likely.

Instructions on how to scan your exam with a smartphone. Unless you plan to use a computer scanner to send me your exam answers, practice this procedure at least one week before the first exam, using the same lighting you plan on having when sending me the exam. During this practice session, e-mail the exam to yourself, then open the e-mail and check the legibility of the text.

Android

Scan a document

- Open the Google Drive app
- 2. In the bottom right, tap Add .
- 3. Tap Scan 🙆.
- 4. Take a photo of the document you'd like to scan.
 - Adjust scan area: Tap Crop 1.
 - Take photo again: Tap Re-scan current page C.
 - Scan another page: Tap Add + .
- To save the finished document, tap Done

iPhone

- Step 1: Locate the Files app on your phone. That's where you can view all of your iCloud files so you're not dancing the document shuffle.
- Step 2: With the app open, select the iCloud Drive location.
- Step 3: Swipe down on the screen and tap the three-dot More icon.
- Step 4: Select New Folder, name your folder Scan and then tap Done.
- **Step 5**: From your new *Scan* folder, swipe down again to tap the three-dot *More* button and select *Scan Documents* to activate the camera.
- **Step 6:** Position the document on a surface and hover the phone above it until it's recognized by the Camera app. The document is highlighted in blue. Most often, the app will take the photo automatically, but there's also a shutter button in case it doesn't grab your document right away.
- Step 7: Tap the Save button and your scan goes into the Scan folder, where it will be visible everywhere you can access iCloud. From there, you can tap the document to rename it.

Scanning multiple documents in sequence

Step 1: Arrange your documents in a stack so they're scanned in order, one after the other.

Step 2: After the camera shoots the first page, the app reads *Ready next scan* along the bottom. Remove the first page so it can capture the second page.

Step 3: Repeat Step 2 until you finish all scanning.

Step 4: Tap *Save* and all your scanned pages will save to a single document. A badge will indicate how many pages are included.

Don't worry about getting the scanning angle right, as the app will automatically correct the view to flatten the scan. When you view the finished scans, they will be properly aligned with a high-quality representation of the contents.

After completing your scan, there are even more options you can tweak. Just tap on the page at the bottom left and use the trash can icon to delete a page completely. The *Retake* button lets you fix a single page in a series without having to restart a multi-page scan. You can further crop or alter the document edges, use a filter, or rotate it so it looks exactly the way you want it.

COURSE OBJECTIVES: The objective is for you to: (1) develop an understanding of the approach which orthodox ("neoclassical") economists use to determine what amount of environmental degradation is appropriate; and (ii) be able to critically evaluate the strengths and weaknesses of the neoclassical approach. As economist Joan Robinson once wrote (*Collected Economic Papers*, 1980, Vol. 2 p. 17):

"The purpose of studying economics is not to acquire a set of readymade 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. 3F (see www.regulations.utah.edu/academi cs/6-100.php), "at the University of Utah we assume 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" (brackets added). So you should expect to study for Econ. 3250 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 exhaustible resource industries, both from a neoclassical and from an "ecological economics" perspective. Knowing physics is quite helpful in the second type of approach. However, I have published work in other areas of dynamic economics, such as finance. I regularly teach microeconomics 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.

OFFICE HOURS: You and I can meet via Zoom or over the phone. Send me an e-mail to set up an appointment.

GRADING: There are a total of 100 points possible for the semester. There will be two closed-book in-class exams, each worth 25 points. The final exam will be comprehensive, and will be worth 50 points. At the end of the semester, your course grade will be based on the sum of the grades you have made on the three exams. *No "extra credit" is possible: if you are worried about passing this class, study very long and hard for the exams.* As a rough guide, I do not expect the final grade distribution to be significantly worse than the following: 15%, A/A-; 30%, B+/B/B-; 35%, C+/C/C-; 15%, D+/D/D-; 5% or less, E.

The reason that neither class attendance nor class participation is part of the grade is that this is primarily a lecture course, so class discussions are not a fundamental part of the teaching and learning method. *However*, in class I very often give details which are not in the textbook; I often given explanations which are not in the textbook; and I occasionally cover entire topics which are not in the textbook. This makes it very difficult to do well on exams unless you either attend class or watch the supplied videos.

I will be recording all of our live sessions and posting the recording online. I do not require you to have your video feed turned on during class, although I prefer that you do have it on because it gives me visual feedback on whether students are puzzled or not. I do require you to have your video feed on during exams (but I do not record exams).

The instructions to my exams say, in part, that "correct answers which are unsupported by explanations will not be awarded points." Students often wonder how much explanation they should put in their answers. A rule of thumb is that you do not have to explain things you knew before you started taking this class, but you have to explain everything you learned since you started taking this class. Do not assume anything is "obvious" unless you knew it before you began taking this class and you are sure most other students knew it before they began taking this class. If you have any doubt about the adequacy of your answer during a test, just ask me during the test. That's one of the things I am there for.

POLICIES:

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 inclass 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 or are ill, 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 time and date is listed on the schedule above. If you have a schedule conflict, resolve it now.
- 2. 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 Section G2, at http://regulations.utah.edu/academics/6-100.php), you must be passing the class at the time you get an incomplete.
- 3. Cheating on exams and other forms of academic dishonesty may lead to expulsion from the class, failure of the class, or more severe penalties. Under University Policy 6-400, Section V, "Academic Misconduct," B4 (http://regulations.utah.edu/academics/6-400.php), I am required to submit a report of all incidents of academic dishonesty to your dean for inclusion in your file.
- 4. All students are expected to maintain professional behavior in the classroom setting (including "virtual classrooms"), according to the Student Code,
 available at www.regulations.utah.edu/academics/6-400.php. 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.
- 5. 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 & Access ("CDA"), 162 Olpin Union Building, (801) 581-5020 (V/TDD), http://disability.utah.edu/. CDA will work with you and me to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the CDA.
- 6. Personal concerns such as stress, anxiety, relationship difficulties, depression, illness, or cross-cultural differences can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the University Counseling Center at 330 SSB (a temporary location), at https://counselingcenter.utah.edu, or at 801-581-6826. For after-hours emergencies, contact the 24/7 Crisis Line at 801-587-3000. For information on contacting a Student Success Advocate, see https://studentsucce

- ss.utah.edu/advocates/our-mission-faqs/, and for links to more than a dozen other student support offices such as the Learning Center, the Dean of Students Office, and the Center for Ethnic Student Affairs, see https://studentsuccess.utah.edu/resources/student-support/.
- 7. Addressing Sexual Misconduct: 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, 426 SSB, at www.wellness.utah.edu or 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).