

Economics of Sustainability

ECO 2310 Section 22248

Time: Mondays and Wednesdays 4:05-6pm

Location: MAT 2

Spring 2019

INSTRUCTOR

Michelle A. Phillips, Ph.D.

michellephillips@ufl.edu

(352) 392-5017

Office Hours: Wednesdays 10:30am-1:30pm in Matherly Hall 334 or by appointment. Note: I will hold extra office hours before each exam. These will be announced via email.

COURSE DESCRIPTION

The course will examine issues in sustainability from an economics perspective with a focus on climate change. A detailed list of topics that will be covered in class is listed in the course topics section on page 2. **This course deals primarily with the Economics of Climate Change.**

Important: *This course does not count as an economics elective, as it is a 2000 level course¹.*

REQUIRED TEXTBOOK

1. "The Climate Casino: Risk, Uncertainty, and Economics for a Warming World" by William Nordhaus. ISBN: 978-0300212648
2. Material available through Canvas

IMPORTANT DATES

| | |
|------------------------------|--|
| T February 12: | Proposal is due (on Canvas) |
| W February 20 ² : | Exam 1 |
| W March 20: | Research Paper due (on Canvas) |
| W April 3 ³ : | Exam 2 |
| April 8, 10, 15, 17, 22: | Student Presentations |
| Throughout the term | Online Quizzes**, in class activities. |

COURSE TOPICS

Topics will be covered in the order listed below, but I reserve the right to remove or add topics. Note: Online quizzes will be given throughout the term. They will be due at least a week after they are announced. Exam reviews are given a week before each exam.

¹ In the past, this course was taught as a 4000 level course and did count as an economics elective. However, this is no longer the case because the course is now a 2000 level course.

² Make up exam date (see make up policy on page 4 for valid excused exam absences): Tuesday, March 12, 7:25-9:20am. Email me for location.

³ Make up exam date (see make up policy on page 4 for valid excused exam absences): Tuesday, April 9, 7:25-9:20am. Email me for location.

Order of Topics Covered for Exam 1 (note: When we are nearing Exam 1, I may narrow this down a bit). Note: This list is not exhaustive, I may add new material to it. I will use power points during some lectures. The powerpoints are already posted in Canvas-Files.

Read the Following Chapters from Climate Casino before Exam 1: Chapters 1-10. All chapters must be read in full.

Additional papers to read (available in Canvas) are listed with ** and in bold.

Chapters 1-5:

- Negative externalities / Unregulated markets and externalities
**** Read “How Economists See the Environment” (on Canvas)**

- Tipping points
- Resistance to reducing GHG emissions
- Relevant court cases
- Free riding
**** Skim “Cost Benefit Analysis Examples” (on Canvas)**

- Cost Benefit Analysis
- Discount Rate
- Optimism Bias
- Revealed Preferences
- Why is climate change difficult to tackle from an economics perspective?
- DICE model and other climate change models
- Public goods
- Evidence of human caused climate change.
- Direct measurements (Hawaii data)
- Indirect measurements (ice core data)
- Uncertainty regarding projections?
- Case study on pollution, health and the economy
**** Read “Recessions and Health” (on Canvas)**

- What tipping points are we concerned about with climate change?

Chapters 6-10:

- Managed and Unmanaged systems
- Optimal Point of Emissions Reductions
- Expected Impacts on: Farming, Health, Oceans, etc.
- Adaptation
- Using Economics to Adapt our Models
- Challenges with Predictions about the Future
- Sea Level Rise (thermal expansion, ice melting, concerns with SLR, what countries are most affected, etc)
- Ocean Acidification
- Hurricanes (hurricane management and costs)
- Island Nations (special topic: renewable energy use in island nations)

**** Read “SIDS and Climate Change” (on Canvas)**

Order of Topics Covered for Exam 2 (note: When we are nearing Exam 2, I may narrow this down a bit). Note: This list is not exhaustive, I may add new material to it. I will use power points during some lectures. The powerpoints are already posted in Canvas-Files.
Read the Following Chapters from Climate Casino before Exam 2: Chapters 11-26.

Chapters 11-16:

- Market failures, valuing ecosystems, contingent valuation
- Adaptation, Mitigation, Geoengineering
- Technologies for reducing CO2
- CO2 reduction methods, economic vs. engineering approach, country participation, economic efficiency, discounting and its effect on calculations.

Chapters 17 to 19:

- Political economy of GHG legislation votes
- Economic incentives to deal with CO2 externalities (carbon pricing, price signals, etc)
- Standards
- Cap and Trade, Safety Valves, Allowance Banking
- Acid Rain program

Chapters 20 to 26 and Special Topics:

- Energy Efficiency
- Enforcement, border tax adjustment, etc
- Economics of innovation

EVALUATION OF GRADES

Your grade will be determined by your performance on the following:

| | |
|-----------------------|-----|
| Exam 1 | 40% |
| Exam 2 | 40% |
| Quizzes/Participation | 10% |
| Research Paper | 10% |

GRADING POLICY

The following scale will be used to determine your final grade:

| Grade | | Grade Points |
|--------------|----|---------------------|
| 93.4-100 | A | 4.00 |
| 90.0-93.3 | A- | 3.67 |
| 86.7-89.9 | B+ | 3.33 |
| 83.4-86.6 | B | 3.00 |
| 80.0-83.3 | B- | 2.67 |
| 76.7-79.9 | C+ | 2.33 |
| 73.4-76.6 | C | 2.00 |
| 70.0-73.3 | C- | 1.67 |
| 66.7-69.9 | D+ | 1.33 |
| 63.4-66.6 | D | 1.00 |

60.0-63.3 D- 0.67
0.00-63.2 E 0.00

** Important: There will be no rounding under any circumstances.

CLASS ATTENDANCE AND MAKE UP POLICY

Excused absences are consistent with university policies in the undergraduate catalog⁴ and require appropriate documentation. Documentation must be provided within a week of the absence.

From the catalog: “In general, acceptable reasons for absence from or failure to participate in class include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, professional conferences), military obligation, severe weather conditions, religious holidays, and participation in official university activities such as music performances, athletic competition or debate. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) must be excused.” Note that I require proof for all absences and I sometimes check to make sure the proof is real. I will take attendance during all student presentation days and may take attendance more than one time on a given day. This will be part of your participation grade.

Late online quizzes, papers, or in class participation will not be accepted under any circumstances, but I will drop one attendance. A makeup midterm and makeup final exam will be provided for students who miss either exam due to extreme, documented circumstances. These can only be taken on the scheduled dates. The scheduled make up exam dates are on the “important dates” footnotes on page 1.

Note: I require exam absences to be verified by the DSO.

DISABILITY ACCOMMODATIONS

Students requesting classroom accommodation for disabilities must first register with the Disability Resource Center. The DRC will provide documentation to the student, who must then provide this documentation to me. Their phone number is 392-8565. If you are taking exams with the DRC, I highly recommend that you reserve the room for all of your exams early on in the semester. The DRC has very strict rules regarding room reservations. My office is not quiet because it is next to advising. For this reason, I provide disability accommodations through the DRC. Getting a room at the DRC is the way to get accommodations for this class and the rules require reservations to be made at least 4 business days in advance. It is the student's responsibility to follow these rules to be able to use the DRC for exams and receive accommodations for this class. If you do not follow the DRC procedures to schedule an exam and miss the deadline, I will not postpone your exam because you failed to reserve the room in time. I highly recommend getting room reservations done early in the term so you don't have to worry about missing any deadlines. If you don't know the procedures, feel free to come talk to me. I am familiar with the process and will be more than happy to help you navigate through it.

⁴ <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

But I cannot help once a deadline has been missed, the DRC has strict rules about room reservations.

COURSE EVALUATION

Students are expected to provide feedback regarding this course by completing online evaluations at <https://evaluations.ufl.edu>. I will provide some time in class during which I will step out of the classroom for these to be submitted towards the end of the term.

CLASS DEMEANOR

Students are expected to arrive to class on time and behave in a manner that is respectful to the instructor and to fellow students. Please avoid the use of cell phones during class. Opinions held by other students should be respected in discussion, and conversations that do not contribute to the discussion should be held at minimum, if at all. Please be professional in e-mails to me and your classmates.

UNIVERSITY HONESTY POLICY

UF students are bound by The Honor Pledge which states, “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 Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TA in this class.

COUNSELING AND WELLNESS CENTER AND OTHER RESOURCES

Contact information for the Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies. Alachua Crisis Center: 352-264-6785. National Suicide Prevention Hotline: 1-800-273-8255.

COURSE WEBSITE

We will be using Canvas. The address is: <http://elearning.ufl.edu/>. You log-in using your Gatorlink ID and password and the course should automatically appear as one of your e-learning options. If it does not, check to make sure you are properly registered for the course. If that is not the issue, contact the UF Computing Helpdesk at: <http://helpdesk.ufl.edu/>. Do not contact me about access issues. I cannot help you and the help you do need will only be delayed if you do. Most course materials and grades will be posted here.

RESEARCH PAPER

Students will complete a 8-12 page paper and conduct a 5-10 minute presentation on a sustainability issue of their choice. The papers can be done individually or in groups of up to 5 students. You can either choose your group, have me choose a group for you, or work by yourself. The issue studied must be approved by the instructor. A detailed outline (two page proposal) will be due at the date specified in the calendar. The full paper and presentation

deadlines are listed as well. Details about the format and citations will be made available on the course website. Both the proposal and paper must be submitted online. You are welcome to submit earlier than the deadline. Plagiarism will result in a grade of 0 (this includes self-plagiarism).

IMPORTANT:

1. You are expected to apply what you learn in class during exams. Exams will not be the same as the quizzes. You will be expected to be able to apply the framework learned in class to other contexts.
2. If you email me to ask something that is either on the syllabus or on a Canvas announcement, I will direct you to the syllabus or Canvas announcement.
3. I provide curves to exams when necessary. For this reason I do not round grades up at the end of the term under any circumstances. I am aware that certain jobs, and even graduation require you to have a grade above a certain level. I will be more than happy to help you study and prepare for exams, but I will not, under any circumstances, raise your grade because you need a high grade for a job or graduation. Grades are earned, not negotiated. Furthermore, one course is not to blame for you missing a grade cut off. Preparing just for the last exam is not sufficient. I will help you prepare for exams if you ask for help throughout the term. I cannot help you if you come to my office the last two weeks of class trying to learn an entire semester of lectures in a few weeks.
4. I will not repeat lectures during office hours. It is your responsibility to attend lectures and to understand your handwriting. If you do not attend, it is your responsibility to obtain class notes from a classmate. Office hours are for asking questions about the material and are not a substitute for class.
5. I will answer emails within 2 business days from the day in which I receive them. If you email me on a Friday, you won't hear back until Monday unless there is an exam on Monday.
6. After each exam, we will spend some time going over the exam questions. I will go over the rubric and you will know exactly why points were taken off. With the exception of cases where the points have been added wrong, if you want me to regrade an exam question, I will regrade the entire exam. Sometimes a mistake is made, and regrading is called for. The following system has been instituted to ensure that my time is spent re-reading exams where there has been a serious mistake and not spent re-reading correctly graded exams: if, on regrading, the grade does not rise by at least 1 point, 1 point will be subtracted from the old grade; grade improvements of at least 1 point will be added to the old grade.
7. All Exams are in class and are closed book. The exams consist of short essay questions and problems. Partial credit will be given for partially correct answers in your exams, so make sure you answer every question. I will provide a calculator for exams, you cannot use your own calculator. Cellular phones may not be used during the exams as calculators or for any other reason. Exams will be curved if the class average is below 70%. Some exams may (or may not) have multiple choice questions.
8. I am always happy to answer questions you may have via email, but that does not mean you can send me test banks you found on the internet and expect me to provide answers for them or ask me to help you solve a question from a homework/quiz/study guide for a different course (with a different instructor).
9. If you are stressed out or experiencing difficulties, UF offers several services such as the Counseling and Wellness Center and GatorWell. Please see page 5 for relevant phone numbers.

10. Expectations: You are responsible for all the material covered in class, and all the chapters covered from the textbook.
11. All quizzes for this class will be through Canvas.