

E183 Environment and People Fall 2020 – Online

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Class meeting: 1:10pm - 2:25pm Tuesdays and Thursdays online via zoom

The course: Environment and People is a course that examines how humans interact with their environment. This course covers multiple topics, centered-around human dimensions of environmental change. The overarching objective is to develop an understanding of our impact on the planet and possible solutions to environmental degradation. Our emphasis during the course will be on understanding how our social and economic systems affect (a) the environment and (b) the way we make decisions concerning the environment. This course is designed to expose students to a breadth of topics where people and environment intersect. In every one of these topics, I expect students to answer the following questions:

- What is the nature of the human-environment interaction?
- Who are the stakeholders involved?
- What should be done, and why?
- What are the benefits and costs of implementing a policy change?
- What are the repercussions?
- How are the benefits and costs spread among the stakeholders (think through from both sides of the issue on this, benefits for one stakeholder may incur costs for another)?
- Will the expected outcome produce the desired results?
- Will the expected outcome be fair?
- If not, are there other policy changes that would lead to more optimal and fair outcomes?

These questions usually do not have “correct” answers. These questions are designed to make you think critically about different aspects of each problem at hand.

Familiarity with the subject

This is an introductory class and I assume no particular level of expertise beyond a science course of some sort in high school. I will assume you have all had an introduction to simple economic ideas, but I will not assume that you have remembered all the details. All concepts will be reviewed before we go on to apply them, and all scientific concepts will be taught from the ground up. I do hope you start reading the newspaper to learn about what is happening in the world and keep up to date on environmental/social issues. We will be discussing new relevant news at the beginning of every class.

Academic integrity

You know the drill. No form of academic dishonesty will be tolerated. This course requires individual integrity and professionalism from all students. Should there be any suspicions of academic dishonesty, you will be notified immediately and asked to explain your actions. If academic dishonesty is proven, you will receive a grade of zero for the work; repeat offense is grounds for failure in the course

Online etiquette

Video: Although I would love to see you, I will let you choose whether to turn on or keep on your video for our zoom classes. I understand how draining zoom can be, but I also value being able to interact with you visually. It is your choice. Also feel free to use virtual or blurred backgrounds or fun filters as you like. I value your privacy and your safety.

Assessment: I will be using a variety of assessment tools to increase community and participation. Discussion board, online quizzes, videos and others will be in the mix.

Feedback: Please contact me if you think there is a better way to offer materials or if something is not working for you or your group. Letting me know how things are going often and early will help me redirect my path.

Special needs

I am happy to accommodate any special academic needs. Please let me know by the first week of classes if you have any special needs. Given this course is online, I will record all our lectures/discussions and have closed captioning applied to them and upload them on Canvas.

Plagiarism

In college courses, we are continually engaged with other people's ideas: we read them in texts, hear them in lecture, discuss them in class, and incorporate them into our own writing. As a result, it is very important that we give credit where it is due. So what exactly is plagiarism? Plagiarism is using others' ideas and words without clearly acknowledging the source of that information. All of the following are considered plagiarism:

- turning in someone else's work as your own
- copying words or ideas from someone else without giving credit
- failing to put a quotation in quotation marks
- giving incorrect information about the source of a quotation
- changing words but copying the sentence structure of a source without giving credit
- copying so many words or ideas from a source that it makes up the majority of your work, ^{SEP} whether you give credit or not

Most cases of plagiarism can be avoided by citing sources. Simply acknowledging that certain material has been borrowed, and providing your audience with the information necessary to find that source, is usually enough to prevent plagiarism. Plagiarism is considered academic dishonesty and work that is found to be plagiarized will receive a grade of zero; repeat offense is grounds for failure in the course. Visit www.plagiarism.org for more details

Submitting HW and essays:

You will only need to submit an electronic copy of your assignments. Turn in your electronic hw answers via Canvas by 3pm ET on the due date. Should there be any suspicions of plagiarism in your work, you will be notified immediately and asked to explain your actions. If plagiarism is proven, you will receive a grade of zero for the work you turned in; repeat offense is grounds for failure in the course.

Materials

There is no text for the course. There will be assigned readings from journal articles, books, websites and the like. Readings and handouts will be posted at least one week before the class on the Canvas website. Please read the material before coming to class. Your notes will be important study aids for the course.

Classroom Work

Most days will include some lecture and some single or group work. During our online lectures, I assume you will be contributing your attention and intelligence at the time. Please visit the restrooms, Facebook, Twitter etc. before class or wait until after class adjourns. Group work will necessarily entail discussion in zoom breakout groups. Please try to tie up your group discussion quickly when I indicate time is up, so that we can review group conclusions with the whole class.

Participation

Class participation is an important part of the course. In fact, it is vital. As a result, participation will be graded. Given we are teaching this course online, participation will include (and not be limited to): asking questions during class, and posting and responding to discussions online. We will make note of your comments for your participation grades. Please note that point allocation is based on our *subjective* assessment of the value of your comments. Ask good questions and be part of the discussion. If you do not participate freely, I will cold call on you to facilitate discussion (modified Socratic method). Grades will be added at each exam time. Please note that if you are nervous about speaking in class, you can also visit the TA or the Professor during office hours to get participation points for the course. Don't just come and expect points. Come prepared to ask questions and discuss interesting aspects of what we are studying in class.

Late assignments

Late assignments will be downgraded 10% per class day. If an emergency arises, communicate with me as soon as possible (generally BEFORE the assignment is due) and I will generally waive the penalty in valid reasonable cases.

Grading for course

You will have 5 homework assignments (1 group assignment, 2 individual calculation-based assignments, and 2 individual short papers (2-4 pages)), a group presentation, and 3 exams. Please do not ask for extra credit assignments. There is no final exam in this class.

Participation	5%	Updated at each exam
Hw 1: Market paper	10%	3-Sep
Group presentations	5%	Topics due: 22-Sep
Hw 2: Energy calculations	10%	17-Sep
Exam 1	10%	29-Sep
Hw 3: Water calculations	10%	15-Oct
Exam 2	12%	27-Oct
Hw 4: Point of view	10%	5-Nov
Hw 5: Individual memo	14%	Topic: 1-Oct Rough outline: 22-Oct Final: 1-Dec
Exam 3	14%	8-Dec

Exams

Exams are cumulative. The grading scale for this class will be the following: min of 97 A+, min of 93 A, min of 90 A-, min of 87 B+, min of 83 B, min of 80 B-, min of 77 C+, min of 73 C, min of 70 C-, min of 67 D+, min of 63 D, min of 60 D-, and less than 60 F. I reserve the right to adjust this scale (i.e., lower it) to account for variability in testing results.

Proctoring exams: Given we are online this year; I will ask you to pledge not to cheat. At the start of all exams and individual work, I will ask that you sign an honor pledge: "I pledge on my honor that I have not given or received any unauthorized assistance on this assignment / examination." Each of you is here to learn and have a stellar education, so I will trust in you to demonstrate your learning in a fair and honorable manner.

Schedule

- 25-Aug **1. Overview of course**
Introduction to course, instructor, online education, community building, and more. I will also discuss some of my research and a case study of Dubai, United Arab Emirates
- 27-Aug **2. Introduction to economics, perfect markets, and market failures**
Group exercise: How perfect are these markets?
- 1-Sep **3. Goods and services, ownership and values, and sustainability**
Living beyond our means: Natural Assets and human well-being (MEAR)
Fischer, B. Defining an ecosystem
- 3-Sep **4. Introduction to common-pool resources**
Hand in HW 1: On markets
Get group presentation topic. Begin to prepare research and presentation.
Hardin, G. (1968). The tragedy of the commons. *Science*, 162(3859), 1243-1248.

Ostrom, E. (2009). A general framework for analyzing sustainability of social-ecological systems. *Science*, 325(5939), 419-422.

- 8-Sep **5. Philosophical debates about sustainability**
Davidson, C. Philosophical Debates
- 10-Sep **6. Understanding energy use and energy perceptions**
In class energy calculations. Bring a calculator.
Smil, V Ch 1. Energy
Larrick, R. P., & Soll, J. B. (2008). The MPG Illusion. *Science*, 320(5883), 1593-1594. Also see: <http://www.mpgillusion.com/>
Attari, S. Z., DeKay, M. L., Davidson, C. I., & Bruine de Bruin, W. (2010). Perceptions of energy consumption and savings. *Proceedings of the National Academy of Sciences*, 107(37), 16054-16059.
[Test your knowledge using CNN Money quiz](#)
Helpful websites: [EPA's EERE](#), [LBNL's Standby energy consumption](#), and [Michael Bluejay](#)
- 15-Sep **7. Valuing biodiversity - Guest: Roger Hangarter** – Professor of Biology and plant artist.
Kolbert, E. (2009) [The sixth extinction?](#) The New Yorker
E. O. Wilson (2007) [On saving life on earth](#), TED talk
E. O. Wilson (2016) [The global solution to extinction](#), The New York Times
More readings TBA
- 17-Sep **8. Terrestrial resources - mining, forestry: Effects of price supports on resource industries**
Hand in HW 2: On Energy
World Resources Institute: Environmental and Social Impacts of Mining
[Understanding Persistent, Bioaccumulative and Toxic substances \(PBTs\)](#)
- 22-Sep **9. Sustainability in Bloomington** – Guest Matt Flaherty – sitting Bloomington City Council member and SPEA alum.
Group Presentation topics due
Readings TBA
- 24-Sep **10. Globalization, the World Trade Organization, and the environment**
Rodrik, Dani (2007) [How to save globalization from its cheerleaders](#)
- 29-Sep **EXAM 1**
- 1-Oct **11. Carrying capacity - Human demography**
Submit topic for individual final memo to TA
[Population growth explained with Ikea boxes by Hans Rosling](#) (TED talk)
Play with [Gapminder tool](#)
Cohen, J. (1998) How many people can the earth support? NYT
Cohen, J. (2011) [Seven billion](#). NYT
- 6-Oct **12. Feeding the world**
Group presentations occur throughout remainder of semester beginning today.

Group 1

Foley, J. [Feeding 9 billion](#), National Geographic
 Bittman, M. (2013) [How to feed the world](#), NYT

8-Oct

13. Protecting our resources: taxes vs. standards**Group 2**

Parry, I. and Pizer, W., [Emissions trading versus CO2 taxes versus standards](#),
 Resources for the future

13-Oct

14. Water resources**Group 3 and Group 4**

Inskeep, B. D., & Attari, S. Z. (2014). The water short list: The most effective actions U.S. households can take to curb water use. *Environment*, 56(4), 4-15.

Attari, S. Z. (2014). Perceptions of water use. *Proceedings of the National Academy of Sciences*, 111(14), 5129-5134.

15-Oct

15. Understanding energy and water utilities and conservation in

Bloomington – Guests: Nolan Hendon the City of Bloomington Utilities

Conservation and Energy Resource Manager and Kelsey Thetonia (stormwater coordinator). Both O'Neill alums.

Hand in HW 3: *Water in your life*

20-Oct

16. Environmental Racism – Guest: Essayist Mary Annaise Heglar

Read these essays and bring questions. This will be a deep discussion with Mary on her work and on one of her favorite authors – James Baldwin.

(1) <https://www.vox.com/the-highlight/2019/5/28/18629833/climate-change-2019-green-new-deal>

(2) <https://www.wired.com/story/what-you-can-do-solve-climate-change/>

(3) James Baldwin: <https://genius.com/James-baldwin-if-black-english-isnt-a-language-then-tell-me-what-is-annotated>

(4) James Baldwin: From Dreams of Love to Dreams of Terror

(5) James Baldwin: Mass Culture and the Creative Artist

22-Oct

17. Environmental refugees

Hand in rough outline of hw 5 individual topic memo to TA

Group 5

Brown, L. (2011) Raging storms, rising seas swell ranks of climate refugees,
 NYT

Davenport, C & Robertson, C. [Resettling the first American 'climate refugees'](#),
 NYT

27-Oct

Exam 2

29-Oct

18. Understanding risk and compassion**Group 6**

Slovic, P. (1987). Perception of risk. *Science*, 236(4799), 280-285.

Slovic, P. (2007). If I look at the mass I will never act": Psychic numbing and genocide. *Judgment and Decision Making*, 2(2), 79-95

- 3-Nov ****PLEASE VOTE ** 19. Nuclear and Renewable Energy**
Group 7
 Pacala, S., & Socolow, R. (2004). Stabilization wedges: Solving the climate problem for the next 50 years with current technologies. *Science*, 305, 968-972.
 Nuclear energy fact sheet
 Renewable energy fact sheet
- 5-Nov **20. Discussing the election results**
Hand in Hw 4: A personal point of view
- 10-Nov **21. Ozone**
Group 9
[Airnow](#),
[The hole truth](#), Australian Broadcasting Corp
- 12-Nov **22. Climate Change Science** – Guest Ben Brabson, Professor of Physics
 Readings TBA
- 17-Nov **23. Climate change and human behavior**
Group 10
 CRED climate change communication guide at <http://guide.cred.columbia.edu/>
- 19-Nov **24. Air quality**
Group 11 and Group 12
 What is the air quality today? <https://www.airnow.gov/>

Thanksgiving

- 1-Dec **25. Sustainability at IU** – Guest [Andrew Predmore](#), Director of Sustainability at IU. He will discuss how decisions actually get made in the real world. Bring questions about sustainability at IU.
Hand in Hw 5: Final individual memo
 Read: *What is education for?* By David Orr <http://www.context.org/iclib/ic27/orr/>
- 3-Dec **26. Morality and Ethics**
Hand in Hw 5: Final individual memo
 Pope Francis (2015) [Laudato Si'](#)
 Prisoners dilemma sheet
- 8-Dec **EXAM 3**
- 10-Dec Final discussion – future plans, feedback on what you learned