

Environmental Studies 3: Environment and Society

Fall 2021, M/W/F 12:50-1:55, 6 Steele Hall

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Course Description

The relationship between humans and the environment is mediated by the consumption of natural resources, the discharge of pollution and waste, and the transformation of landscapes and ecosystems. Unsustainable outcomes arise because individuals and organizations have incentives to undertake actions that degrade environmental quality, often in the context of markets. As a result, achieving sustainability requires laws, public policies, social norms, and shared understandings that align individual action with collective well-being. This course analyzes the causes and solutions of environmental problems by integrating concepts from a variety of social science disciplines. In addition, it explores the role that ecology and ecosystem science play in understanding and responding to sustainability challenges.

Course Requirements

Course evaluations will be based on:

- **Two midterm examinations** (25% each). These exams will be held on Friday, October 8 and Wednesday, November 3.
- A **data-science project** (15%). This will involve responding to a set of questions that guide you through analyzing data related to the socioeconomic trends of COVID-19 incidence in Louisiana. This assignment will be due on Friday, October 22.
- A **5-page paper** (35% total). Papers will evaluate and discuss a current environmental issue in a “feature article” style aimed at an educated audience that is not familiar with the specific topic. The task is to communicate sophisticated ideas to a general readership. Final papers will be due on November 23.

Readings

The course will draw on readings from the following two textbooks, each of which are available in both printed and digital formats:

1. Kai N. Lee, William R. Freudenburg, and Richard B. Howarth, *Humans in the Landscape: An Introduction to Environmental Studies*, W.W. Norton, 2013.
2. Michael E. Kraft, *Environmental Policy and Politics*, 7th edition, Routledge, 2018.

In addition, the course will engage frequently with supplementary readings, which may be accessed by following the hyperlinks provided in this syllabus.

Teaching Assistant

The teaching assistant for this class is Lan Nguyen (Lan.T.Nguyen.GR@dartmouth.edu). Lan will hold office hours to answer questions about the course materials and to support your work on the data-science and final paper assignments.

Academic Integrity

Under Dartmouth's [Academic Honor Principle](#), it is impermissible to give or receive assistance during an examination. In addition, papers must be written by the student and reflect their own interpretation of the subject matter with careful attention to the attribution of sources.

Accessibility and Accommodations

Students requesting disability-related accommodations and services for this course are required to register with Student Accessibility Services (SAS; [Getting Started with SAS webpage](#); student.accessibility.services@dartmouth.edu; 1-603-646-9900) and to request that an accommodation e-mail be sent to the instructors in advance of the need for an accommodation. Then, students should schedule a follow-up meeting with the instructors to determine relevant details such as what role SAS or its [Testing Center](#) may play in accommodation implementation. This process works best for everyone when completed as early in the quarter as possible. If students have questions about whether they are eligible for accommodations or have concerns about the implementation of their accommodations, they should contact the SAS office. All inquiries and discussions will remain confidential.

Mental Health

The academic environment at Dartmouth is challenging, our terms are intensive, and classes are not the only demanding part of your life. There are a number of resources available to you on campus to support your wellness, including [your undergraduate dean](#), [Counseling and Human Development](#), and the [Student Wellness Center](#).

Religious Observances

Some students may wish to take part in religious observances that occur during this academic term. If you have a religious observance that conflicts with your participation in the course, please meet with me before the end of the second week of the term to discuss appropriate accommodations.

COVID-19 Information

You are expected to attend class in person unless you have made alternative arrangements due to illness, medical reasons, or the need to isolate due to COVID-19. For the health and safety of our class community, please: do not attend class when you are sick, nor when you have been instructed by Student Health Services to stay home.

In accordance with current College policy, all members of the Dartmouth community are required to wear a suitable face covering when indoors, regardless of vaccination status. This includes our classroom and other course-related locations, such as labs, studios, and office hours. If you need to

take a quick drink during class, please dip your mask briefly for each sip. Eating is never permitted in the classroom. (The only exception to the mask requirement is for students with an approved disability-related accommodation.) If you do not have an accommodation and refuse to comply with masking or other safety protocols, the instructors are obligated to ensure that the Covid health and safety standards are followed, and you will be asked to leave the classroom. If you refuse to comply with masking or other safety protocols, and to ensure the health and safety of our community, the instructors are obligated to report you to the Dean's office for disciplinary action under Dartmouth's Standards of Conduct.

Topics, Readings, and Course Schedule

- M 9/13 Introduction and overview (Erbaugh/Howarth)
- Lee *et al.*, chapter 1
- W 9/15 The state of the environment (Howarth)
- Lee *et al.*, chapter 2
 - Paul J. Crutzen, "Geology of Mankind," *Nature*, Vol. 415, p. 23, 2002. ([link](#))
- F 9/17 The market mechanism and the "Invisible Hand" (Howarth)
- Lee *et al.*, chapter 13
 - Michael Spence, "The Inequality of Nations," *Project Syndicate*, August 1, 2019. ([link](#))
- M 9/20 Commons dilemmas (Erbaugh)
- Lee *et al.*, chapter 3
- W 9/22 Common property regimes (Erbaugh)
- Elinor Ostrom, Joanna Burger, Christopher B. Field, Richard B. Norgaard, and David Policansky, "Revisiting the Commons," *Science*, Vol. 284, pp. 278-282, 1999. ([link](#))
 - Rights and Resources Initiative. 2018. *At a Crossroads. Consequential trends in recognition of community-based forest tenure from 2002-2017*. Washington, DC. pp. 1-25 ([link](#))
 - Stacey Vanek Smith and Robert Smith. "The Bottom of the Well," Episode 640 from *Planet Money*, NPR. ([link](#))
- F 9/24 The role of the state (Erbaugh)
- Lee *et al.*, chapter 12
 - William Ophuls and A. Stephen Boyan, Jr., "The Politics of Scarcity," Chapter 4 in *Ecology and the Politics of Scarcity*, W.H. Freeman, 1992. ([link](#))
- M 9/27 The Policy Process (Erbaugh)
- Kraft, Ch. 3

- W 9/29 Case study: Forest cover change in Indonesia (Erbaugh)
- William Wyatt, “The Case of the Vanishing Jungle,” in *The New York Times*, August 11th, 2021 ([link: text](#), [link: audio](#))
- F 10/1 Pollution control policy (Howarth)
- Kraft, pp. 148-173
- M 10/4 Pollution control policy (Howarth)
- Kraft, pp. 148-173
- W 10/6 The Clean Air Act (Howarth)
- Kraft, pp. 173-198
 - Amelia T. Keyes, Kathleen F. Lambert, Dallas Burtraw, Jonathan J. Buonocore, Jonathan I. Levy, and Charles T. Driscoll, “The Affordable Clean Energy Rule and the Impact of Emissions Rebound on Carbon Dioxide and Criteria Air Pollutant Emissions,” *Environmental Research Letters*, Vol. 14, pp. 1-10, 2018. ([link](#))
- Th 10/7 Review session (5:00 – 6:00 PM in Room 6 Steele)
- F 10/8 **Midterm #1**
- M 10/11 Disproportionality and environmental racism (Erbaugh)
- Lee *et al.*, chapter 4
 - William R. Freudenburg, Robert Gramling, Shirley Laska, and Kai T. Erikson, “Disproportionality and Disaster: Hurricane Katrina and the Mississippi River-Gulf Outlet,” *Social Science Quarterly*, Vol. 90, pp. 497-515, 2009. ([link](#))
 - Purdy, J. “Environmentalism’s Racist History.” *The New Yorker*, August 13th, 2015. ([link](#))
- W 10/13 The data-science assignment (Erbaugh/Howarth/Nguyen)
- F 10/15 Justice and the environment (Erbaugh)
- John Rawls, *A Theory of Justice* in *Justice: A Reader* ed. Michael Sandel, 2007. ([link](#))
 - Amy Krings, Dana Kornberg, and Erin Lane. “Organizing Under Austerity: How Residents’ Concerns Became the Flint Water Crisis.” *Critical Sociology* 45(4-5): 583-597, 2019. ([link](#))
 - OR
 - *Al Jazeera*. “The Stream – Flint’s Poisoned Water.” *Youtube* 21 Jan. 2016. ([link](#))
- M 10/18 Conservation, resource management, and political ecology (Erbaugh)
- Kraft, pp. 221-253.

- R.P. Neumann, “Political Ecology,” in the *International Handbook of Human Geography*, 6 pp., 2009. ([link](#))
- W 10/20 The Land Ethic and the Endangered Species Act (Howarth)
- Aldo Leopold, “The Land Ethic,” pp. 237-264 in *Sand County Almanac*, Oxford University Press, 1949. ([link](#))
 - U.S. Department of Interior, “Trump Administration Improves the Implementing Regulations of the Endangered Species Act: Species Conservation is the Ultimate Goal,” press release, August 12, 2019. ([link](#))
 - U.S. Department of Interior, “U.S. Fish and Wildlife Service and NOAA Fisheries to Propose Regulatory Revisions to Endangered Species Act,” press release, June 4, 2021. ([link](#))
- F 10/22 **Data Science Project Due**
- F 10/22 Ecosystem services (Howarth)
- Walter E. Westman, “How Much Are Nature's Services Worth?” *Science*, Vol. 197, pp. 960-964, 1977. ([link](#))
 - Robert Costanza, Rudolf de Groot, Paul Sutton, Sander Van der Ploeg, Sharolyn J. Anderson, Ida Kubiszewski, Stephen Farber, and R. Kerry Turner, “Changes in the Global Value of Ecosystem Services,” *Global Environmental Change*, Vol. 26, pp. 152-158, 2014. ([link](#))
- M 10/25 Roundtable on Social-Ecological Systems
- W 10/27 Limits to Growth? (Howarth)
- Lee *et al.*, chapter 10
 - Donella H. Meadows, Dennis L. Meadows, and Jørgen Randers, “Beyond the Limits: An Executive Summary,” *Bulletin of Science, Technology, and Society*, Vol. 13, pp. 3-14, 1993. ([link](#))
- F 10/29 Sustainable Development (Erbaugh)
- Chris Sneddon, Richard B. Howarth, and Richard B. Norgaard, “Sustainable Development in a Post-Brundtland World,” *Ecological Economics*, Vol. 57, pp. 253-268, 2006. ([link](#))
- M 11/1 Resilience and Planetary Boundaries (Howarth)
- Kate Raworth, “A Safe and Just Space for Humanity: Can We Live Within the Doughnut?” *Oxfam Policy and Practice: Climate Change and Resilience*, Vol. 1, pp. 1-26, 2012. ([link](#))
- Tu 11/2 Review session (X-hour)
- W 11/3 **Midterm #2**

- F 11/5 Guest Lecture: Topics on polar governance (Professors Melody Burkins and Ross Virginia)
- M 11/8 Climate change: economics and ethics (Howarth)
- Lee *et al.*, chapter 7
- W 11/10 Globalization and the environment (Erbaugh)
- Timothy Searchinger, Ralph Heimlich, Richard A. Houghton, Fengxia Dong, Amani Elobeid, Jacinto Fabiosa, Simla Tokgoz, Dermot Hayes, and Tun-Hsiang Yu, “Use of U.S. Croplands for Biofuels Increases Greenhouse Gases Through Emissions from Land-Use Change,” *Science*, Vol. 319, pp. 1238-1240, 2008. ([link](#))
- F 11/12 Small Group Discussion of Final Paper Proposals
- M 11/15 Wrapping up and the road ahead (Erbaugh/Howarth)
- Tu 11/23 ***Due date – Final Paper***