

Environmental Studies 3: Environment and Society

Fall 2024, M/W/F 12:50-1:55, 200 LSC

Prof. Michael Cox
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Course Description

Interactions between people and the environment drive “environmental problems.” Human-environmental interactions refer to how individuals and groups transform landscapes and ecosystems, use natural resources, and generate pollution. Consequences from these interactions can lead to detrimental outcomes at local, regional, or global scales. As a result, achieving sustainability requires laws, public policies, social norms, and shared understandings that align individual action with collective well-being. This course considers 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.

Teaching Assistant

Dyah Puspitaloka (dyah.puspitaloka.gr@dartmouth.edu) is the teaching assistant for this course. Dyah will hold TA Office Hours in 113A Steele on Thursday from 3:00-5:00 PM to answer questions about the course materials and to support your work on the assignments. If you wish to meet with Dyah in a location or time different from her office hours, you may request to do so via email.

Grading policies and course requirements

We will use the following scale in assigning grades, without exceptions.

93%-100%:	A	77%-79.9%:	C+
90%-92.9%	A-	73%-76.9%:	C
87%-89.9%:	B+	70%-72.9%	C-
83%-86.9%:	B	60%-69.9%:	D
80%-82.9%	B-	Below 60%:	F

Unless there has been a clerical error, we do not discuss grades for specific assignments or final grades once they have been determined. If you contact us about a grade, you will need to identify the clerical error you have identified.

Late policy: For late submissions we will deduct a half letter grade per day, with the due date counting as the first day (e.g. if you turn an assignment in after the due date and time but within 24 hours of this, your grade will be reduced from an A to an A- or a B to a B-). If you anticipate that you will have a problem meeting a deadline due to an excusable issue (e.g., family emergency,

serious illness, etc.), please contact us before the assignment is due to make appropriate arrangements.

Course evaluations will be based on:

- **Weekly comprehension quizzes** (35%). These quizzes will be held on Wednesdays. They will consist of 10 to 15 questions that assess understanding of lecture and reading material. The quizzes will be paper-based and closed book.
- **Weekly activities and participation** (30%). This will involve spot checks for attendance and participation in Friday activities (10%) as well as group projects completed during these Friday activities, including the environment and communication project (10%), and a data science and COVID-19 project (10%).
 - As a part of your participation, you are also expected to comply with the following rules for technology use in the classroom. **On Mondays and Wednesdays, laptop computers and cell phones are not permitted.** On Fridays, you will need to bring your laptops and cell phones to classes for quizzes and some activities. Please note that personal use of cell phones in class is never permitted.
- A **one-page paper proposal** (5%). Students will submit a proposal that outlines their final paper and identifies a set of references they plan to use.
- A **five-page final paper** (30%). 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.

Readings

Our primary textbook for this course is:

Robbins, P., Hintz, J. G., & Moore, S. A. (2022). *Environment and society: a critical introduction*. John Wiley & Sons.

We will engage frequently with:

Anderies, John M., and Marco A. Janssen. (2013). *Sustaining-the-Commons*. 2nd ed.

In addition, we will draw from supplementary readings, which may be accessed using the “Library Guides/Reserves” page in Canvas.

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.

Generative AI platforms are permitted to inform students’ understanding and writing. However,

please be aware that generative AI platforms such as Chat GPT are not ideal research tools. They can provide incorrect or unverified information, they do not cite sources, and they often generate fake citations. Thus, it will be necessary for students to check any information they acquire from generative AI to ensure its accuracy.

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.

Consent to Record

We will not record lectures or activities. However, there may be a situation that requires recording. By enrolling in this class, students indicate their consent to be recorded. Under [Dartmouth's policies](#), the ownership and copyright of recorded class sessions belong to the instructor. Students with privacy concerns should consult with the instructor during the first two weeks of the term.

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 email dyah.puspitaloka.gr@dartmouth.edu before the second week of class. We will determine appropriate accommodations for your planned absence.

Class Attendance and Illness

You are expected to attend class in person. If you are unable to attend, it is your responsibility to communicate your absence and the reason for it to the instructors. Please do so by emailing dyah.puspitaloka.gr@dartmouth.edu

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. If you feel sick or have mild symptoms, wear a face mask and limit close contact with others.

X-hours

We are planning on using one X-hour period, on November 12th, 2024.

Topics, Readings, and Course Schedule

Week One

- M 9/16 Introduction and overview (Cox/Erbaugh)
- W 9/18 The intrinsic value of nature (Cox)
- Robbins *et al.*, Chapter 1 and Chapter 5
 - Williams, F. (2017). “The Biophilia Effect.” In *The nature fix: Why nature makes us happier, healthier, and more creative*. 1st ed. Norton & Company.
- F 9/20 Activity: Decarbonizing campus tour OR nature appreciation walk
- Optional: Smalley, podcast episode # 1 (The Healing Power of Nature) Robert L. Heilbroner, “The Wonderful World of Adam Smith,” Chapter 3 in *The Worldly Philosophers* (Simon and Schuster, 1986). (Skim whole chapter; focus especially on pp. 53-59).

Week Two

- M 9/23 The extrinsic value of nature and the market mechanism (Erbaugh)
- Robbins *et al.*, Chapter 3
- W 9/25 The extrinsic value of nature and the market mechanism (Erbaugh)
- *Quiz 1 in class*
- F 9/27 Activity: Decarbonizing campus tour OR nature appreciation walk

Week Three

- M 9/30 Commons dilemmas (Erbaugh)

- Robbins *et al.*, Chapter 4
- Smith, S. V. and Smith, R. (2015) “Episode 640: The Bottom of the Well.” *Planet Money*. July 22, 2015.

W 10/2 Common property regimes (Cox)

- Steneck, R. S., Hughes, T. P., Cinner, J. E., Adger, W. N., Arnold, S. N., Berkes, F., ... & Worm, B. (2011). Creation of a gilded trap by the high economic value of the Maine lobster fishery. *Conservation biology*, 25(5), 904-912.
- Berkes, F., Hughes, T. P., Steneck, R. S., Wilson, J. A., Bellwood, D. R., Crona, B., ... & Worm, B. (2006). Globalization, roving bandits, and marine resources. *Science*, 311(5767), 1557-1558.
- Nordman, E. (2021). “Lobster gangs and debunking “The Tragedy of the Commons.” *yes! Solutions Journalism* [August 11th, 2021].
- *Quiz 2 in class*

F 10/4 Activity: The Tragedy of the Commons Game: Part 1

Week Four

M 10/7 Guest Lecture by Gerald Nanning

- Roberts, M., Norman, W., Minhinnick, N., Wihongi, D., & Kirkwood, C. (1995). Kaitiakitanga: Maori perspectives on conservation. *Pacific conservation biology*, 2(1), 7-20.
- Radio New Zealand. (2020). “Hundreds march against massive landfill.” [July 14th, 2020]. <https://www.youtube.com/watch?v=mPFRrHXYtjQ>
- Te Karare TVNZ. (2021). Hapū vows to fight Dome Valley landfill decision: “There’s going to be one hell of a scrap.” [June 15th, 2021]. <https://www.youtube.com/watch?v=JIE3DMN797c>

W 10/9 The role of the state (Erbaugh)

- Lee K., Freudenburg, W., and Howarth, R. (2013) “Chapter twelve: Collective Action.” *Humans in the Landscape*. W. W. Norton & Co.
- *Quiz 3 in class*

F 10/11 Activity: The Tragedy of the Commons Game: Part 2

Week Five

M 10/14 Introduction to the Institutional Analysis and Development (IAD) Framework (Cox)

- Janssen and Anderies Ch. 4
- Janssen and Anderies Ch. 5

W 10/16 IAD Framework Case: The Taos acequias (Cox)

- Janssen and Anderies Ch. 6

- Janssen and Anderies Ch. 7
- *Quiz 4 in class*

F 10/18 Activity: The Tragedy of the Commons Game: Part 3

Week Six

- M 10/21 Disproportionality and environmental racism (Erbaugh)
- Freudenburg, W. R., Gramling, R., Laska, S., & Erikson, K. T. (2009). Disproportionality and Disaster: Hurricane Katrina and the Mississippi River-Gulf Outlet. *Social Science Quarterly*, 90(3), 497-515.
 - Mohai, Paul, David Pellow, and J. Timmons Roberts. "Environmental Justice." *Annual Review of Environment and Resources* 34, no. 1 (2009): 405–30.

- W 10/23 Introduction to the Data Science Project
- Terrell, K. A., & James, W. (2022). Racial disparities in air pollution burden and COVID-19 deaths in Louisiana, USA, in the context of long-term changes in fine particulate pollution. *Environmental Justice*, 15(5), 286-297.
 - Tessum, C. W., Paoletta, D. A., Chambliss, S. E., Apte, J. S., Hill, J. D., & Marshall, J. D. (2021). PM_{2.5} 5 polluters disproportionately and systemically affect people of color in the United States. *Science Advances*, 7(18).

- *Quiz 5 in class*

F 10/25 Activity: Data Science Project workday

Week Seven

M 10/28 Guest Presentation by Arun Agrawal

- W 10/30 Introduction to the Environmental Communication Project
- Pezzullo, P. C., & Cox, R. (2018). "Chapter one: Defining Environmental Communication," pp. 11-17. *Environmental Communication and the Public Sphere*, 5th Ed. SAGE: Los Angeles, CA, USA.
 - NOTE: Other Sources TBD
 - *Quiz 6 in class*

F 11/1 Activity: Environmental Communication Project workday

- *Data Science Project Due*

Week Eight

- M 11/4 The biodiversity crisis and conservation (Erbaugh)
- Watson, R., Baste, I., Larigauderie, A., Leadley, P., Pascual, U., Baptiste, B., ... &

Mooney, H. (2019). Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. IPBES Secretariat: Bonn, Germany, 22-47.

- Leopold, A. (1949) “The Land Ethic.” *A Sand County Almanac*, Oxford University Press

W 11/6 Nature-based solutions (Erbaugh)

- Seddon, N., Smith, A., Smith, P., Key, I., Chausson, A., Girardin, C., ... & Turner, B. (2021). Getting the message right on nature-based solutions to climate change. *Global change biology*, 27(8), 1518-1546.
- Cook-Patton, S. C., Drever, C. R., Griscom, B. W., Hamrick, K., Hardman, H., Kroeger, T., ... & Ellis, P. W. (2021). Protect, manage and then restore lands for climate mitigation. *Nature Climate Change*, 11(12), 1027-1034.
- *Quiz 7 in class*

F 11/8 Activity: Causal thinking in environmental studies

- Frank, E. G. (2024). The economic impacts of ecosystem disruptions: Costs from substituting biological pest control. *Science*, 385(6713), eadg0344.
- Wyatt, W. (2021) “The Case of the Vanishing Jungle.” *The New York Times*, August 11th, 2021.
- *Environmental Communication Project due*

Week Nine

M 11/11 Climate change: collective action and policy (Cox)

- Robbins *et al.* Chapter 11
- Mildenberger, M. (2019). “The tragedy of the Tragedy of the Commons. *Scientific American Blogs* [August 23rd, 2019]. <https://www.scientificamerican.com>

Tu 11/12 Guest lecture by Tricia Martone

- *Quiz 8 in class*

W 11/13 Activity: Small group discussion of paper proposals

- *Paper proposal due*

Week 10

M 11/18 Wrapping up and the road ahead (Cox/Erbaugh)

M 11/24 ***Due date – Final Paper***