

## ENV 102 - Spring 2022

# Introduction to Environmental Sciences & Policy syllabus

**Time** - Mon & Wed, 1:45 PM – 3:00 PM

**Location** - When returning to in-person classes, lectures will be held in Grainger Hall 1112. For your small discussion groups, your TA will inform you of your meeting location.

### Learning objectives

This course is designed to introduce students to the fields of environmental science and policy. Our goals include the following:

- Gain an improved understanding of how the world works!
- Examine historical and current environmental challenges from natural and social science perspectives.
- Develop an awareness of human interactions with the natural world, and the relationship of the well-being of humans and the rest of the environment.
- Assess the insights, scientific tools, and policies needed to protect our environment.
- Evaluate the rigor and utility of various sources (from scholarly literature to social media) that we use to learn about environmental issues.

We'll explore a range of urgent, often controversial environmental challenges. Lectures and discussion sections will address climate change, the ecology of epidemics, biodiversity conservation, air quality, water use, human population growth, sustainability, and more. During discussions, you may be asked to explore various sides of complex questions at the intersections of life science, physical science, policy, and ethics. You are welcome to voice arguments with which you do not yourself agree, as long as they are well-reasoned and you can defend them! That is, we'll keep in mind the notion:

*"It is the mark of an educated mind to be able to entertain a thought without accepting it." - Aristotle*

### Course Instructors & office hours

We welcome the chance to meet with you, at any point during the semester! Please reach out if you would like to meet individually. For questions related to your discussion group, please start by contacting your Discussion TA. Below, we list the best way to schedule office hours.

**Jennifer Wernegreen (she/her/hers), [j.wernegreen@duke.edu](mailto:j.wernegreen@duke.edu)**

Welcome! Please call me Jen! I'm a faculty member in the Environmental Science and Policy (ESP) division of the Nicholas School. My research interests include microbial ecology, evolution, species interactions, and environmental change. In my free time I enjoy gardening and exploring local forests & rivers and gardening. Office hrs: I hope to meet with many of you throughout the semester. For office hours, please email me (at [j.wernegreen@duke.edu](mailto:j.wernegreen@duke.edu)), and we can schedule a time to meet.

Zoom room: <https://duke.zoom.us/j/2357553935>

**Chainey Boroski (she/her/hers), [chainey.boroski@duke.edu](mailto:chainey.boroski@duke.edu)**

Hi there! I'm an Environment PhD student and ecophysiology researcher who focuses on pine forests and climate-change-induced drought. I'm from Eastern Ohio, and when I'm not neck-deep in R code, I love doing yoga, cooking and baking for my friends, and exploring the Duke Forest. If you'd like to arrange a time to meet for office hours, or if you have any questions, please feel free to email me at [chainey.boroski@duke.edu](mailto:chainey.boroski@duke.edu).

Zoom room: <https://duke.zoom.us/j/94297217081>

**Mandy Hooks (she/her/hers), [mandy.hooks@duke.edu](mailto:mandy.hooks@duke.edu)**

Hello! I am a second-year MEM (Master of Environmental Management) candidate at the Nicholas School concentrating in Energy and Environment. My interests in the field include energy policy, electric power markets, and grid decarbonization. I am originally from Rochester, NY, and I love hiking, watching hockey, and practicing my Spanish. For office hours, please email me ([mh541@duke.edu](mailto:mh541@duke.edu)) a set of times that work for you and we can work something out from there.

Zoom room: <https://duke.zoom.us/j/98738618921>

**Qing Dai (she/her/hers), [qing.dai@duke.edu](mailto:qing.dai@duke.edu)**

Hi. I'm a first year MSC (Marine Science and Conservation) PhD student. My research interest is microbial ecology. I like playing computer games and listening to music during my spare time. My home country is China, so I'm happy to share my experience in China if you are interested. Please email me ([qing.dai@duke.edu](mailto:qing.dai@duke.edu)) if you have any questions.

Zoom room: <https://duke.zoom.us/j/5963957650>

**Christopher Kilner (he/him/his), [christopher.kilner@duke.edu](mailto:christopher.kilner@duke.edu)**

Hi there! I'm a 5th year Ecology PhD candidate who focuses on Bayesian modeling applications to ecological communities. I'm from the Maryland suburbs of Washington, DC. You can often find me either coding away or taking a long walk, baking, or making pottery (or trying to at least, it's my new hobby)! If you'd like to set a meeting for office hours, or if you have any questions—on science, careers, or Duke, please feel free to email me at [christopher.kilner@duke.edu](mailto:christopher.kilner@duke.edu).

Zoom room: <https://duke.zoom.us/j/4327046188>

## General structure— lectures & discussion sections

Our course will be a combination of (full-class) lectures plus smaller TA-led discussion groups of ~22 students each. You'll be assigned a discussion group soon.

**Lectures** - As you've heard from Duke, the first couple of weeks will be *remote-only*. These lectures will be held synchronously via Jen's zoom room below.

<https://duke.zoom.us/j/2357553935>

While we hope you can attend these initial lectures 'live' (synchronously) on zoom, they will also be recorded and posted to Sakai, if you're unable to attend.

If all goes as hoped, we'll soon shift to *in-person* sessions. At that point, lectures will be held in Grainger Hall 1112 (also known as Field Auditorium). Once returning to in-person lectures in Grainger Hall, I'll do my best to record via Panopto and provide recording links, in case you miss a lecture.

**Discussion sessions** - Much of your grade will be based on your contributions to your discussion group. These contributions include written submissions beforehand, as well as your active, informed contributions to each discussion. Before discussion sections, please be sure that you've caught up on any readings or other materials provided. Before your first discussion group, your TA will provide a grading rubric to clarify expectations. [Attending discussion groups is required.](#)

**1. Short written submissions.** In advance of most discussion sessions, you'll be asked to submit written responses to focal questions provided. These questions will relate to the readings (or videos, etc.) assigned for that discussion session and might require you to seek out additional sources on your own.

**2. Your verbal contributions to discussion sessions.** Each week, please join your discussion session prepared to contribute. In addition to your thoughts relating to focal questions provided beforehand, please arrive with new questions that intrigue you, as well as your critiques and comments about the readings or general themes explored.

*Examples of discussion formats.* The exact formats of discussions are flexible and may vary. As an example, at the beginning of each discussion session, your TA might randomly select a couple of students to lead discussion of the readings, so please arrive prepared. In addition, your TA may divide the group into smaller teams for some portion of the session, and then ask a representative of each to report back on the conclusions arrived upon.

Regardless of the specific format, *meaningful participation* is expected of all. Of course, we understand that some people talk more than others, but we expect to hear from you. If you are concerned about your ability to actively participate in discussion, please indicate this in your pre-class survey or reach out to your TA directly, so that we can work together to ensure you feel comfortable participating.

## Course materials & resources

**Sakai Site** - Please acquaint yourself with the course Sakai site, which we'll use frequently. To upload any graded written assignments, please use the associated link in the **Assignments** tab in the left-hand menu. (That is, please do not email written assignments to your TA, nor submit them via your Sakai Dropbox.)

**Textbook** – Assigned readings will draw from the excellent textbook, *The Environment and You*, 3rd edition, (2019)

<https://tinyurl.com/2p89yc8e>

This textbook was coauthored by Duke professor emeritus Dr. Norm Christensen, who taught this course for many years. This book is a phenomenal resource for background material you may find beneficial, foundational concepts that we'll emphasize during class, and numerous recent case studies that illustrate major concepts and controversies.

**FAQ: Do I need to buy/rent the textbook?** The short answer is, no, not necessarily. Copies are available on reserve in Perkins library. That said, I think you'll benefit by having a copy within easy reach. Used copies of the 2019 edition are fairly abundant at Duke (as this text has been used in ENV102 in past semesters). Finding a used copy, and perhaps sharing it with another student or two, could be a good approach. In

addition, for most chapters the older (2016) edition will serve us well. I will provide PDFs of select chapters from the 2016 edition.

**Current articles, etc.** – Assigned materials will also include a wide range of current scientific articles, news reports, podcasts, videos, etc. These will be provided on Sakai under "Resources."

**Seeking out additional background** - Environmental science & policy is by nature an interdisciplinary field, building on life sciences, physical sciences, political science, ethics, and more. While there are no prerequisites for ENV102, you might find that you need to seek out additional resources for particular topics. We're happy to help you find additional resources including textbooks, if this is helpful to you.

## Grading

The point value for each activity or assignment is noted as "course points" (x/100) -- in other words, the % of your final course grade. Within the Sakai Gradebook link, you can check on your current points earned and see how you're doing so far. Final letter grades for the class will follow the typical scale: 98.0-100=A+; 92.0-97.9=A; 90.0-91.9=A-; 88.0-89.9 =B+; 82.0-87.9 =B; 80.0-81.9 =B-; 78.0-79.9 =C+, etc.

Like other graded courses, Trinity has strict policies for requesting an S/U (Satisfactory/Unsatisfactory) designation instead of a letter grade. If you wish to request S/U, please be sure you understand the implications of this choice (e.g., in terms of fulfilling major requirements, etc.) and that you meet the form submission deadline. These policies and form are linked below:

<https://trinity.duke.edu/undergraduate/academic-policies/unsatisfactory-satisfactory-grading-option>

Course component	points
Disc groups (written + verbal contributions)	50
Energy debate	10
In-lecture ques	10
Project, pitch/proposal	5
Project	20
Project, peer eval	5
	100

**Discussion group grades** - 60% of your course grade will be based on your written and verbal contributions to your discussion group (10 points for each of five discussion sessions, plus 10 points for a debate focusing on a current energy controversy). Again, attendance of each scheduled discussion group is required. You're expected to submit all write-ups on time, and to participate in each discussion session.

**In-lecture questions** - Several times during the semester, you'll be asked to submit short, written responses to questions during lectures. If you've read the assigned materials and have stayed up to date on lectures, you'll be in great shape addressing these questions. We'll also let students drop their two lowest scores (including zeros if you happened to miss a lecture or two). In total, these responses will contribute 10 points (10%) of your final grade.

**Final Project** - The second half of the semester will include a final project on a topic of your choosing. The instructions and details for this final project will be provided well in advance. 30 points (30% of your grade) will be based on your final project, including a [brief pitch/proposal on Wed. Mar 30](#), the project itself (due

noon, [Fri April 22](#)), and peer feedback that you provide on the projects of two other students (due noon, [Tues April 26](#)).

**Missed/late work** - Regarding missed classes or missed/late work (e.g., written submissions, or attendance of your discussion group), we will follow Duke's policy below. Please note, Duke has very specific circumstances under which missed/late work is considered excused.

<http://trinity.duke.edu/undergraduate/academic-policies/class-attendance-and-missed-work>

This page notes the Short-Term Illness Notification Form, also linked below:

<https://trinity.duke.edu/undergraduate/academic-policies/illness>

If you submit this form, please enter Jen's email ([j.wernegreen@duke.edu](mailto:j.wernegreen@duke.edu)). You should receive a copy of the incapacitation form that you submitted. **Please forward that email (containing your incapacitation form) to the TA leading your discussion group, so that your TA is aware that your absence from discussion is considered excused.** Please note that it's **up to you to arrange make-up work within 48 hours of any missed assignment/class**. The above link also includes instructions for reporting longer-term illness or other issues, such as personal instances of stress or emergency. Generally, such issues should be communicated to your academic dean.

If you need to miss class due to Covid isolation protocols, of course we'll work with you to help you remain engaged and make up any missed work.

## Diversity Statement

It is our intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is our intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let us know ways to improve the effectiveness of the course for you personally or for other students or student groups.

## Land Acknowledgment

We would like to share an excerpt from the *Land Acknowledgment* statement, written by faculty and staff of the Office of the Duke Forest, headed by Duke faculty member Nicolette (Nicki) Cagle, Ph.D.

*"What is now Durham was originally the territory of several Native nations, including Tutelo (TOO-tee-lo) and Saponi (suh-POE-nee) - speaking peoples. Many of the communities were displaced or killed through war, disease, and colonial expansion. Today, the Triangle is surrounded by contemporary Native nations, the descendants of Tutelo, Saponi, and other Indigenous peoples who survived early colonization. These nations include Haliwa-Saponi (HALL-I-wa suh-POH-nee), Sappony (suh-POE-nee), and Occaneechi (oh-kuh-NEE-chee) Band of Saponi. North Carolina's Research Triangle is also home to a thriving urban Native American community who represent nations from across the United States. Together, these Indigenous nations and communities contribute to North Carolina's ranking as the state with the largest Native American population east of Oklahoma."*

The complete text of the *Land Acknowledgment* statement is linked below:

<https://dukeforest.duke.edu/files/2020/11/Duke-Forest-Land-Acknowledgement.pdf>

## Duke Community Standards (Honor Code)

**The Duke Compact** - The Duke Compact recognizes our shared responsibility for our collective health and well-being. Please be reminded that by signing your name to this pledge, you have acknowledged that you understand the conditions for being on campus. Please be familiar with the Compact, to which you've agreed as part of the Duke community: <https://returnto.duke.edu/compact/>

**Duke Community Standard** - All students, whether residing on campus or learning remotely, must adhere to the Duke Community Standard (DCS). Duke University is a community dedicated to scholarship, leadership, and service and to the principles of honesty, fairness, respect, and accountability. Citizens of this community commit to reflect upon and uphold these principles in all academic and non-academic endeavors, and to protect and promote a culture of integrity.

To uphold the Duke Community Standard:

- I will not lie, cheat, or steal in my academic endeavors;
- I will conduct myself honorably in all my endeavors; and
- I will act if the Standard is compromised.

Regardless of course delivery format, it is the responsibility of all students to understand and follow Duke policies regarding academic integrity, including doing it one's own work, following proper citation of sources, and adhering to guidance around group work projects. Ignoring these requirements is a violation of the Duke Community Standard. If you have any questions about how to follow these requirements, please contact the Office of Student Conduct ([conduct@duke.edu](mailto:conduct@duke.edu)).

You can obtain more details about the Duke Community Standard here:

<https://studentaffairs.duke.edu/conduct/about-us/duke-community-standard>

This page links to *The Duke Community Standard in Practice: A Guide for Undergraduates*. A direct link to that Guide is here:

<https://registrar.duke.edu/sites/default/files/bulletins/Full%20DCS%20Guide%202020-2021-v2.pdf>

We urge you to download and read this guide. Pp. 12-13 note the definition of plagiarism and various examples. Please note that plagiarism can be intentional (e.g., deliberately copying from sources without crediting them) **or unintentional** (e.g., very poor scholarship resulting in misuse of sources), and that **“students are responsible for learning proper scholarly procedures.”** That is, it is *your responsibility* to make sure that you understand and follow the honor code, including how to cite sources appropriately.

If you haven't yet taken the tutorial and self-test on plagiarism, please do so: <https://plagiarism.duke.edu/>

If we detect a violation of the honor code, **we have no option** other than to report the incident to the Office of Student Conduct (OSC). Please use good scholarship and reach out if you need any clarifications.

## Wellness Resources

Please know that the Duke community continues to rally together, to help us get through this challenging time. All instructors (Jen and the TAs) are available via email and office hours (via Zoom or in-person when safe), to answer any questions and concerns you might have. **We are here for you.**

Resources and advice provided by Duke are centralized on the website below:

<https://keeplearning.duke.edu/wellness-strategies/>