

# Our Global Environment

The Ohio State University

Spring 2021

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Course #      GEOG 2800; 3 credits

Lecture: Derby Hall 1080, MoWe 4:10 - 5:05 PM (Online)

Lab: Mo 3-3:55 PM (**Pomerene Hall 301**)

      We 3-3:55 PM (**Scott Lab E100**)

Instructor:    Dr. Yue Qin

Office: 1123 Derby Hall

E-mail: [qin.548@osu.edu](mailto:qin.548@osu.edu)

Virtual office Hours: MoWe 5:10 - 6:30 PM or by appointment

My role in this course is to design and deliver it, and to answer questions about the content.

TA:            Katie Krupala

E-mail: [krupala.1@osu.edu](mailto:krupala.1@osu.edu)

Virtual Office hours: Tuesday/Thursday 1pm-2pm via Zoom

If possible, please send an email before to let Katie know you are coming.

Katie's primary job is to manage the lab, grade your work, and to answer questions you have about the class.

Course URL: <http://carmen.osu.edu>

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## Lectures: Cohorts & Times

This year, students enrolled in this class are divided into two cohorts.

Everyone will attend the online Mo and We LECTURES. You will attend one lab every week (either Mo or We), depending on the course section in which you are enrolled. If changes are necessary, you should coordinate with TA for approval.

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## **Disability Services**

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: [slds@osu.edu](mailto:slds@osu.edu); 614-292-3307; [slds.osu.edu](http://slds.osu.edu); 098 Baker Hall, 113 W. 12th Avenue.

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## **Course Description**

Geography has a rich heritage of investigating the relationships between people and the natural environment, from the fundamental biophysical processes upon which human existence depends, to humanity's role in transforming nature. This course provides an introduction to current environmental issues from the uniquely integrative perspective of geography. Topics range from global-scale processes such as climate change, to the local-scale impacts of air pollution. In each case, the nature and scope of the problem is reviewed, its underlying mechanisms outlined, and ongoing efforts to resolve the problem are explored.

After taking this course, students should: better understand the basic processes underlying important types of environmental change at local, regional, and global scales; grasp how geographers approach environmental science, assessment, and problem-solving; be able to critically assess multi-media coverage of these issues; better identify the links between everyday consumption choices and environmental outcomes; and understand the political-economic drivers of environmental change.

This course serves as the first required core course in the Environment & Society track for a BA in Geography and serves as a Natural Science elective for OSU's General Education (GE) for non-Science majors.

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## **Course Structure & Expectations**

You are expected to attend all lectures and one lab per week. You should expect to take notes in class. Much of the material will not be on PowerPoint and thus not available except by attending class and taking notes.

There is no substitute for class attendance. Though I will post the PowerPoint slides for each lecture, they are image-rich; my lectures provide much of the associated context and content.

I will not take attendance this year. However, success in the class requires review of the material presented in lecture, because the lectures provide the context and content you need for labs participation and finishing assignments. If you are unable to attend class for any reason, it is your responsibility to get the notes from that class from a colleague.

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## Modules

All course materials can be found within the weekly module. There is no textbook for this course; all the materials you'll need can be found in Carmen.

**Weekly labs** are also located within the module structure. They are designed to give you an opportunity to apply the insights learned in class to the local scale, by working through a case study problem.

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## Evaluation

Activity	Share of Final Grade (100%)
Participation in lectures	10%
Labs	40%
Online Quiz	10%
Mid-term Energy Debate	15%
Final presentation	25%

### Participation

Participation in class discussion makes for a lively experience and facilitates peer learning. This class is typically comprised of students from a varied mix of majors, and we have much to learn from each other's experiences. I will provide multiple opportunities for you to share your opinions and to debate issues. Being an engaged and encouraging listener is also a form of participation.

If you do not think you can participate in these ways in class, please let me know in advance and I will find ways to accommodate you. Otherwise, students who are constantly distracted by their

screens, are disruptive or unwilling to engage in friendly and respectful discussion, should expect a “0” in their participation grade.

The labs “build” comprehension of research methods and hypothesis-building throughout the course.

### Mid-term Energy Debate

Refer to materials for Lab 5 for details. You have to decide your group members and when to present early on.

### Final Project

OSU strongly encourages undergraduates to engage in research, and routinely funds student research projects (for more, visit the Office of Undergraduate Research and Creative Inquiry). An important step in doing research is to write a research proposal. Throughout this course, and especially during the lab portions, we will build the skills needed to come up with a draft proposal for a potential research project. From the week of March 15 onwards, we will focus on this task. You will have to decide when to present early on.

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## **Letter Grades & Requirements**

We will use OSU’s Standard Grade Scheme:

93 - 100 (A); 90 - 92.9 (A-); 87 - 89.9 (B+); 83 - 86.9 (B); 80 - 82.9 (B-); 77 - 79.9 (C+); 73 - 76.9 (C); 70 - 72.9 (C-); 67 - 69.9 (D+); 60 - 66.9 (D); Below 60 (E).

For information about grade requirements for GE courses, see:

<https://artsandsciences.osu.edu/academics/current-students/advising/ge>

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## **Policies**

You are expected to attend all lectures scheduled this semester. If you ABSOLUTELY must miss class, you must notify the Instructor or TA beforehand. Pending our approval, we will discuss potential make-up options. Exceptions will only be made for serious, unanticipated reasons (emergencies, illness), for which documentation will be required.

## Health & Safety Requirements (COVID-19 policies)

All students, faculty and staff are required to comply with and stay up to date on all university safety and health guidance (<https://safeandhealthy.osu.edu>), which includes wearing a face mask in any indoor space and maintaining a safe physical distance at all times. Non-compliance will be warned first and disciplinary actions will be taken for repeated offenses.

A more detailed description of expectations and accountability measures can be found here:

[https://safeandhealthy.osu.edu/sites/default/files/2020/07/safe\\_and\\_healthy\\_campus\\_expectations\\_accountability\\_measures\\_7.24.2020\\_website.pdf](https://safeandhealthy.osu.edu/sites/default/files/2020/07/safe_and_healthy_campus_expectations_accountability_measures_7.24.2020_website.pdf)

Repeated or persistent failure to wear a mask that covers your mouth and nose to an in-person lab will be reflected in your grade for this course.

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## **Academic Misconduct**

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors are obliged to report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487).

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## **GE Statement**

This course fulfills the requirements of a Natural Science: Physical Science GE course. The goal of the Natural Science GE is for students to understand the principles, theories, and methods of modern science, the relationship between science and technology, the implications of scientific discoveries and the potential for science and technology to address problems of the contemporary world.

There are four central learning objectives:

1. Students understand the basic facts, principles, theories and methods of modern science.
2. Students understand key events in the development of science and recognize that science is an evolving body of knowledge.

3. Students describe the inter-dependence of scientific and technological developments.
4. Students recognize social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.

This course meets these objectives by:

- reviewing physical science insights into contemporary environmental challenges;
- understanding how science is socially produced and contested
- emphasizing and applying different scientific methods;
- outlining the evolution of geographical and ecological science over time, and the ways in which some ideas about nature and society become dominant;
- critically discussing and writing about the role of technology in scientific discoveries, environmental management and adaptation;
- critically evaluating our relationship to the natural world using case studies, in-class activities and discussion, and hands-on field- and lab-based work;
- debating the social and ecological costs and benefits of different forms of environmental adaptation and mitigation.

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## **Your Mental Health**

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing.

If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting [ccs.osu.edu](http://ccs.osu.edu) or calling 614- 292-5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-

292-5766 and 24-hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-800-273- TALK or at [suicidepreventionlifeline.org](http://suicidepreventionlifeline.org)

## SCHEDULE (Subject to Change)

Week	Date	Topics	Notes
1	1/11	Course Introduction	Lab1: self-introduction and know your lab mates Total points: 1
	1/13	What is Environment and Why Geography?	
2	1/18	<i>Martin Luther King Jr. Day (no class)</i>	No lab
	1/20	Use and misuse of basic quantitative methods. Back-of-the envelope estimates	
3	1/25	The earth system	Lab2: BOE Total points: 5
	1/27	Global population and earth pressure (Part 1)	
4	2/1	Global population and earth pressure (Part 2)	Lab 3: Explore the ‘World of Change’ Total points: 5
	2/3	Energy system (Part 1)	
5	2/8	Energy system (Part 2)	Lab 4: Exponential Growth and Global Population Total points: 5
	2/10	Energy system (Part 3)	
6	2/15	Energy system (Part 4)	Lab 5: Energy debate preparation (divide the whole class into 4 groups, with ~8 people in each group, representing 2 subgroups choosing 2 different fuel types. Group 1-4 has the order of priority of fuel type choices. Total points: 6
	2/17	Review session for quiz	
7	2/22	<b>Online quiz (TA will send the exam at the course time, and you have to submit it at the end of the course time (1hr). Late submission is not allowed. Please check your wi-fi connection and set an alarm in advance.</b>	Lab 6: help students with additional review (Wednesday students can attend this one)
	2/24	No class	

8	3/1	Midterm: Energy debate (group 1)	Lab 7: help students with mid-term debate preparations. (as necessary) [offer the flexibility of holding all presentations in week 8 or week 9]
	3/3	Midterm: Energy debate (group 2)	
9	3/8	Midterm: Energy debate (group 3)	Lab 8: help students with mid-term debate preparations. (as necessary)
	3/10	Midterm: Energy debate (group 4)	
10	3/15	Summary of mid-term quiz and presentations; discuss the final projects	<b>No Lab:</b> Watch the Movie “An Inconvenient Truth” and write a 500 words summary about it. You can access the free online movie from here: <a href="https://pluto.tv/on-demand/movies/an-inconvenient-truth-1-1?utm_medium=textsearch&amp;utm_source=google">https://pluto.tv/on-demand/movies/an-inconvenient-truth-1-1?utm_medium=textsearch&amp;utm_source=google</a>
	3/17	Climate change (Part 1)	
11	3/22	Climate change (Part 2)	Lab 9: Modeling Resource Flows through Campus Total points: 6
	3/24	Climate change (Part 3)	
12	3/29	Climate change (Part 4)	Lab 10: Estimate your own carbon footprint Total points: 5
	3/31	U.S. EPA and air pollution (part 1) <i>No 3/31 class: this class will happen on Apr 2nd</i>	
13	4/5	U.S. EPA and air pollution (part 2)	Lab 11: Air pollution Total points: 7
	4/7	U.S. EPA and air pollution (part 3)	
14	4/12	All students’ final project presentations (each student will have 10 minutes for the final presentation, 3 minutes for Q&A)	Lab 12-14: meet as necessary to help students prepare for final projects.
	4/14		
15	4/19		
	4/21		
16	4/26		
	4/28		