Course #	#33445; 3 credits
Instructor	Dr. **Kendra McSweeney** Office: 1164 Derby Hall E-mail: mcsweeney.14@osu.edu **Office hours**: Tuesdays 10 am - 12 pm or by appointment
Lectures Labs	M W 4:10-5:05 PM Page Hall 010 Mon (#33446) **OR** Wed (#33447) 3:00-3:55 pm Derby Hall 1080
TA	**Scarlett Jin** Office: Derby Hall 1155 E-mail: jin.760@buckeyemail.osu.edu **Office hours:** Mondays 10:00 - 12:00 am or by appointment

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. You are also welcome to register with Student Life Disability Services to establish reasonable accommodations. 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; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

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 drinking water contamination. 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. Particular attention is paid to how specific environmental issues are manifest here in Ohio, and on campus.

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. The course also offers an introduction to the process of scientific research, through hands-on exploratory research leading to research hypotheses and a preliminary research proposal.

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

Course Structure & Expectations

Lectures: There are two lectures and one lab per week. Students are required to attend all scheduled class periods. Exams will cover material presented in lecture and labs. There will be material presented in class/lab that is not found in the readings, so students must make arrangements to get notes from other students for material they may have missed.

Students are encouraged 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.

Readings: There is no textbook for this course. All required readings (including book chapters, research articles, news items, web-based content, and more) are available on Carmen. There is one required reading per week. Readings complement the lectures and labs, and students are responsible for all assigned readings. **You must do the readings if you expect to do well in this course.** Readings should be completed PRIOR to the lecture/lab for which they are listed.

Weekly Labs: Weekly labs offer students a chance to experience the research process directly through investigation of real-world environmental processes. Lab-based work accounts for 50% of the course grade. The labs are integrated with the lectures to allow students to review, apply, and explore in detail the material presented in lecture, and to develop research skills.

Lab policies:

- Students may only attend the lab session in which they are registered.
- Readings related to the lab should be completed PRIOR to lab time.
- Labs are designed to be completed and submitted during the assigned lab period.
- In rare cases, labwork may be submitted outside of the lab period (upon discussion with instructors).
- Teamwork is essential to the lab process, but the majority of grading for lab work reflects individual effort.
- Because the labs rely on teamwork, missed labs cannot be 'made up for' later.
- Please bring what you need to do on-line research; most labs will require it.
- At least one lab period is devoted to conducting research on/off campus.

Carmen course website: On Carmen you will find course readings, announcements, discussion boards for asking/reviewing questions, some materials from lecture, and grades. The Carmen content is NO SUBSTITUTE for attending class.

Evaluation

1. Lecture Attendance & Participation 10%
2. Mid-term exam I (Sept 30) 20%
3. Mid-term exam II (Nov 6) 20%
4. Lab Grade
   The lab grade is comprised of
   - attendance 10%
   - written work 10%
   - group presentation* 5%
   - in-lab exam 15% (Dec 2 **OR** Dec 4)

* the presentation grade is the only grade assigned to the group rather than the individual student

More details regarding lab grading will be provided once we know the composition and size of the lab teams.

Attendance will be taken at all lectures.

Opportunities for Extra Credit

OSU is a big university and there are typically many events over the semester that are related to course themes. If you attend one of these events, and are willing to share your impressions with the class (please emphasize one or two 'take home' insights from the experience), You can earn **up to an additional 5%**. Please confirm with the instructor or TA if you are not sure if an event qualifies.

Letter Grade Conversion

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).

Policies

Attendance: Please be present for all classes and labs. Attendance will be taken. In general, no material can be made up, and no late work is accepted. However, if you ABSOLUTELY must miss class or lab, 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.**

Screen Policy: The only reason to have a screen in front of you is if you are using it to take notes. Occasionally, the instructor may ask you to use a smart device to access information or review material in Carmen. **Students who are consistently distracted by their devices will be marked absent, and this will be reflected in their attendance/participation grade.**

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).

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:

- emphasizing physical science insights into contemporary environmental challenges;
- reviewing and applying different scientific methods;
- outlining the evolution of geographical and ecological science over time;
- 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 costs and benefits of different forms of environmental adaptation, mitigation, and remediation.

SCHEDULE

Class Topics, Required Readings, and Labs

(Subject to Change)

Week	Date	Day	Lecture	Readings	Lab
1					
	WED	8/21	Introduction to course		**NO LAB**
2	MON	8/26	Why Geography?		**Lab 1**: Intro to Lab Format, Goals, and Framework
	WED	8/28	Framing Human-Environment Relationships	Reading for lecture	
3	MON	9/2	**LABOR DAY**		**NO LAB**
	WED	9/4	Debate: *Is population THE problem?*	Readings for lecture	
4	MON	9/9	Climate Basics	Reading for Lab 2	**Lab 2**: Material Flows through Campus: What & How?
	WED	9/11	Climate—Certainties I		
5	MON	9/16	Climate—Certainties II	Reading for lecture	**Lab 3**: Mapping Flows: Establishing Boundaries
	WED	9/18	Climate—Uncertainties		
6	MON	9/23	Mitigating Climate Change		**Lab 4**: Quantifying Flows: How Much? Who Cares?
	WED	9/25	Debate: *Is it up to individuals to save the planet?*	Reading for lecture	
7	MON	9/30	**EXAM I**	Reading for Lab 5	**Lab 5**: How are Material Flows Governed?
	WED	10/2	Energy Basics		
8	MON	10/7	The U.S. Energy Mix	Readings for Lab 6	**Lab 6**: Material Flows as Environmental Problems: How and for Whom?
	WED	10/9	Focus on: Transportation		
9	Mon	10/14	Alternatives to Oil	Readings for lecture	**Lab 7**: Preparing for Exploratory Fieldwork
	Wed	10/16	Ecosystems I: Case Study of SEOhio (I)		
10	Mon	10/21	SE Ohio Case Study (II)	Reading for lecture	**Lab 8**: Conduct Exploratory Fieldwork: Site Visits and Interviews
	Wed	10/23	Scaling up: Global Forest Change		
11	Mon	10/28	Global Food System: What do we eat?	Reading for lecture	**Lab 9**: Building a Research Question
	Wed	10/30	How are Food Systems Doing?		
12	Mon	11/4	Global Food Paradox	Reading for Lab 10	**Lab 10**: Writing a Research Proposal (template provided)
	Wed	11/6	**EXAM II**		

13	Mon	11/11	**VETERAN'S DAY**	Reading for Lab 11	**NO LAB**
	Wed	11/13	Cities I: The Human Right to Water		
14	Mon	11/18	Cities II: Urban Agriculture	Reading for lecture	**Lab 11:** Preparing to Pitch Your Research Idea (presentation template provided)
	Wed	11/20	Cities III: Sustainable Cities		
15	Mon	11/25	Cities IV: Urban Metabolism	Reading for lecture	**NO LAB**
	Wed	11/27	**THANKSGIVING**		
16	Mon	12/2	Pitching Research: Presentations I & Peer Grading		**LAB EXAM**: Linking Your Research to Lecture Concepts
	Wed	12/4	Pitching Research: Presentations II & Peer Grading		