GEOGRAPHY 2800: Our Global Environment

AU 2017 (Course #24437; 3 credits)

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Office hours: Tuesdays 10 am 12 pm or by appointment
- Lectures
 M W 4:10-5:05 PM Scott Lab E024

 Labs
 M OR W 3:00-3:55 pm Derby Hall 1080
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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. 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:** <u>slds@osu.edu</u>; 614-292-3307; <u>slds.osu.edu</u>; 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 in Ohio. 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; and better identify the links between everyday consumption choices and environmental outcomes.

This course serves as the first required core course in the Environment & Society track for a BA in Geography, and/or it serves as Natural Science elective for OSU's General Education Curriculum 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. During exams, students will be responsible for all material presented in lecture and lab. 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.

<u>Readings</u>: 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 Canvas. 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 class day on which they are listed.

Weekly Labs: Weekly labs allow students to review, apply, and explore in detail the material presented in lecture, and to develop research skills. Students may only attend the lab session in which they are registered.

- All labs must be completed and submitted during the assigned lab period (unless otherwise indicated by the lab instructor).
- Late work will not be accepted and there are no make-up opportunities. ٠
- In some labs, teamwork is encouraged, but grading is based on the quality of individual work and participation.
- Students must come to lab with notebook, writing materials, readings from notes/lectures, and a calculator.
- Advance notice will be given for labs that require on-line research, travel on campus, or outdoor activities. ٠
- The lowest lab score will not be used in calculating the final grade.

Canvas course website: On Canvas you will find course readings, announcements, some materials from lecture, and grades. The Canvas content is NO SUBSTITUTE for attending class.

Evaluation

- 1. Attendance & Participation 10%
- 2. Mid-term exam I (Oct. 1) 20
- 3. Mid-term exam II (Oct. 27) 20
- 4. Lab assignments (10 labs @ 3% each) 30* 20
- 5. Final in-class exam (Dec 8)

* There are 11 labs in all. Your lowest lab score is not considered in the final calculation of your grade.

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

<u>Attendance</u>: 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 Lab Instructor 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.**

<u>Screen Policy</u>: The only reason to have a screen in front of you is if you are using it to take notes. In rare cases, the instructor may also ask you to use a smart device to access information or review material in Canvas. Cell phones should be off. 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 shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct http://studentlife.osu.edu/csc/.

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: (a) emphasizing physical science insights into contemporary environmental challenges; (b) reviewing and applying different scientific methods; (c) outlining the evolution of geographical and ecological science over time; (d) critically discussing and writing about the role of technology in scientific discoveries, environmental management and adaptation; (e) critically evaluating our relationship to the natural world using case studies, in-class activities and discussion, and hands-on field- and lab-based work; (f) 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 [see Canvas]	Lab
1					
	WED	8/23	Introduction		NO LAB
2	MON	8/28	Why Geography		Environmental Issues and You
	WED	8/30	Anthropocene	[Reading]	Environmental Issues and You
3	MON	9/4	LABOR DAY		NO LAB
	WED	9/6	Climate: Arguing climate	[Reading]	NO LAB
4	MON	9/11	Climate—Certainties I		News Analysis
	WED	9/13	Climate—Certainties II		News Analysis
5	MON	9/18	Climate—Uncertainties I	[Reading]	Visit BPCRC
	WED	9/20	Climate—Uncertainties II		Visit BPCRC
6	MON	9/25	Climate—Impacts & Response	[Reading]	Ice Albedo Feedback
	WED	9/27	Climate—Paths Forward		Ice Albedo Feedback
7	MON	10/2	EXAM I		NO LAB
	WED	10/4	Energy I		NO LAB
8	MON	10/9	Energy II	[Reading]	Energy Debate Prep
	WED	10/11	Energy III		Energy Debate Prep
9	Mon	10/16	Energy IV / Ecosystems I	[Reading]	Energy Debate
	Wed	10/18	Ecosystems II		Energy Debate
10	Mon	10/23	Ecoystems III	[Reading]	Farm Lab
	Wed	10/25	Agriculture I		Farm Lab
11	Mon	10/30	Agriculture II	[Reading]	Food Lab
	Wed	11/1	Agriculture III		Food Lab
12	Mon	11/6	EXAM II		NO LAB
	Wed	11/8	Water Quality	[Reading]	Water Lab: Questionnaire design
13	Mon	11/13	Water Quality		Water Lab: Questionnaire design

	Wed	11/15	Water Access	[Reading]	Water Lab: Survey
14	Mon	11/20	Urban Agriculture		Water Lab: Survey
	Wed	11/22	THANKSGIVING		NO LAB
15	Mon	11/27	Urban Agriculture & Sustainability	[Reading]	Decoding scientific writing
	Wed	11/29	Urban Sustainability		Decoding scientific writing
16	Mon	12/4	Review for Final Exam		NO LAB
	Wed	12/6	EXAM III		NO LAB