

Geography 210: Physical Geography and Environmental Issues

Autumn 2009 Syllabus

5 credits, no prerequisites

	<u>Day</u>	<u>Time</u>	<u>Place</u>	<u>Call number</u>
Lecture:	TR	08:30-10:18 AM	Derby Hall 1080	12227
Labs:	F	08:30-09:48 AM	Derby Hall 1080	12228
	F	02:30-03:48 PM	Derby Hall 1080	12229

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 or by appointment

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 or by appointment, email

Course description:

This course provides an introductory overview of current environmental issues from a geographic perspective. The academic discipline of geography features a rich heritage of investigating the relationship between people and the natural environment. In this course, students will be introduced to aspects of physical geography that will provide an objective understanding of fundamental processes to then critically examine global environmental concerns. There will be an emphasis on developing a critical perspective, requiring an appreciation for a broad range of concepts in physical sciences as well as human/social dynamics. The environmental issues explored vary in scale from global warming to local water pollution. Weekly lab sessions will complement lectures with practical exercises designed to develop skills and apply concepts to case studies, many relating to local environmental issues.

Students should learn from the course: basic processes underlying environmental change at different scales (local, regional and global); geographic perspectives on environmental issues; how to critically engage issues presented in the media; how to discern the linkages between their daily actions, consumption choices and environmental impacts. The course is the first required course in the *People, Society and Environment* track for a B.A. in Geography, and/or serves as a *Natural Science elective* for the Ohio State University *General Education Curriculum (GEC)*¹ for non-science majors.

Course structure & expectations:

There are two lectures and one lab per week. Students are *required* to attend all scheduled lectures and labs, and will be responsible for all material presented in lecture and lab during exams. There will be material presented in class and/or lab that is not found in the text, so students must make arrangements to get any information they may have missed. Attendance will not be taken, but the instructor will give quizzes at the beginning of class; anyone absent will not receive credit.

¹ **Natural Science GEC Goals/Rationale:** Courses in natural sciences foster an understanding of the principles, theories and methods of modern science, the relationship between science and technology, and the effects of science and technology on the environment. **Learning Objectives:** (1) Students understand the basic facts, principles, theories and methods of modern science; (2) Students learn key events in the history of science; (3) Students provide examples of the interdependence of scientific and technological developments; (4) Students discuss social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.

Readings from the text will complement the lecture, and students are accountable for all assigned readings on the exams. Note that readings/topics are subject to change from those listed on this syllabus, and reading beyond assigned chapters is encouraged.

Weekly Labs:

Weekly labs allow students to review, apply and explore in detail material presented in lecture. Students may only attend the lab session in which they are registered, and must complete all lab exercises by the end of the lab period (unless indicated otherwise). Any late exercises will be penalized by 10% *PER DAY*, and will only be accepted from those in attendance during lab. There are no make up opportunities. Teamwork is encouraged in lab, but grading is based on quality of individual work and participation. Students are required to attend all lab sessions properly prepared. Please bring your text to lab. Lab exercises may require use of a ruler and calculator, and may require outdoor clothing. Advanced notice will be given for any labs held out-of-doors.

Required Text:

Chapters will be assigned weekly from: Physical Geography: Environmental Issues. Wiley. ISBN 0-470-03877-2. The text is available at OSU Bookstores (Barnes & Noble and Central Classroom), both new and used. **Note:** This is a black-and-white custom textbook composed of selections from two larger textbooks published by Wiley:

- Botkin & Keller. 2005. Environmental Science, 5th ed. ISBN: 0-471-48816-X
- Strahler & Strahler. Introducing Physical Geography, 4th ed. ISBN: 0-471-67950-X.

Both of these texts are also on 3-hour reserve in the Geology Library.

Course Website:

This course uses the Carmen system as a course webpage. It can be found at <http://carmen.osu.edu> and is a useful class resource. To access the site for this class, you will need to login using your OSU ID and password, and look for GEOG 210 under the Autumn 2008 heading. On the webpage you will find announcements, copies of the PowerPoint™ slides used in lecture, additional readings, discussion boards for asking and answering questions, and you can track your progress in the course by viewing your grades.

Course evaluation:

1.	Mid-term in-lab exam	25%	Oct 30, 2008
2.	Final exam	35%	Wed Dec 9, 2009
3.	Lab assignments	35%	due in lab weekly
4.	Attendance/participation/professionalism ²	5%	

Other policies:

Students who anticipate missing an exam must make arrangements with the instructor at least **one week prior**. Furthermore, no in-class activity or exam can be made up without special advanced notice, given at the instructor's discretion. *Documentation will be required for an excused absence.*

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://studentaffairs.osu.edu/info_for_students/csc.asp).

² *Professionalism* includes arriving in a timely fashion, making sure your cell phone will not disrupt class, and treating your classmates with respect.

Disability Services

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated, and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>.

Tips for success:

- Office hours are held for your benefit. Please take advantage of them to get the most out of the class, and be prepared when it comes time for your examinations. We don't bite.
- Some of the concepts in the class can seem tricky. Ask questions! It far is better to ask a question and review a concept in class than to miss a question on an exam. *"The dumb questions are the ones that you don't ask..."*
- When completing the assigned readings, pay attention to the figures. Sometimes a concept is better taught graphically. The authors included the figures to help you, not to fill up space.
- Keep up on the readings. If you have prepared for class by doing the readings, you will be able to follow the lectures and take quality notes.
- Use the discussion boards on Carmen and your fellow students as resources.
- Find relevance and take an interest. You will find that you learn better when you engage the material.
- Attend class regularly and participate. A large portion of life hinges on just showing up and experiencing. Classes are no different, except you are graded on both.

Class Schedule:

Week Date Topic Text (chapters)

1	24 Sep	Introduction
	25 Sep	Lab 1: The Environment and You
2	29 Sep	Thinking critically about our environment B&K 1
	01 Oct	Fundamental geography of Earth S&S 1
	02 Oct	Lab 2: Where in the World...?
3	06 Oct	Water resources in the Earth System S&S 15, B&K 5.5
	08 Oct	Water quality & supply S&S 15
	09 Oct	Lab 3: OSU Wetlands FIELD TRIP
4	13 Oct	Global energy balance S&S 2, B&K 22
	15 Oct	Global temperature & carbon S&S 3, 8.1, B&K 5
	16 Oct	Lab 4: Ice Albedo
5	20 Oct	Energy basics & fossil fuel consumption B&K 16, 17
	22 Oct	Alternative energy & the environment B&K 17-19
	23 Oct	Lab 5: Energy Conservation Strategies
6	27 Oct	Is population THE environmental problem? B&K 4, Hardin article
	29 Oct	Review session
	30 Oct	MIDTERM EXAM (IN LAB SECTIONS)
7	03 Nov	Biogeographic processes & patterns S&S 8, B&K 8, 9
	05 Nov	Food production & the environment- African Case B&K 11
	06 Nov	Lab 6: Ohio agro-ecosystem & food miles
8	10 Nov	Agricultural practice, land use & community B&K 12
	12 Nov	Forests & biodiversity S&S 8, B&K 13
	13 Nov	Lab 7: Ohio forests
9	17 Nov	Anthropogenic impacts & climate issues B&K 22
	19 Nov	Paleoenvironmental reconstruction B&K 22
	20 Nov	Lab 8: Critically engaging local environmental issues
10	24 Nov	Air pollution B&K 23
	26 Nov	NO CLASS - Thanksgiving
	27 Nov	NO LAB – Columbus Day, Obs
11	01 Dec	A sustainable future: costs & benefits B&K 27, 30
	03 Dec	Summary B&K 30
	04 Dec	Lab 9: Review for final exam

FINAL EXAM: WEDNESDAY, DECEMBER 9, 2009 7:30-9:18 AM