

GEO 235 – Introduction to Health & the Environment
Syllabus
Spring, 2018

Instructor: Dr. Pearson Assistant Professor of Geography
Office: Room 231, Geography Building
Phone: ext 27163
Email: apearson@msu.edu
Office hours: TR 11:00a-1:00p, or by appointment

Time & Place: Lectures: TR 1:00 – 2:20p Wells Hall A326

Class webpage: on D2L

This page will be used to post homework assignments, additional reading, and other information. I urge you to check this site regularly. You will also have to upload your completed assignments to the D2L Dropbox (more details in Late Policy).

Prerequisites: None

Required textbook: McMichael, A.J. Human Frontiers, *Environments and Disease: Past Patterns, Uncertain Futures*. Cambridge University Press, 2001

Attendance: Lectures: Required

Assignments/Grading:

Exercise 1	5%
Exercise 2	5%
Exercise 3	5%
Exercise 4	5%
In-class exercise	2 @ 5% each
Pop quizzes	2 @ 7.5% each
Midterm	25%
Final Exam	30%

90-100 = 4.0 A
85-89 = 3.5 B+
80-84 = 3.0 B
75-79 = 2.5 C+
70-74 = 2.0 C
65-69 = 1.5 D+
60-64 = 1.0 D
< 60 = 0.0 F

Course objectives:

The main purpose of this course is to introduce you to the field of environmental health by focusing on the geography of people and the environment, untoward exposures to hazards in the environment and potential adverse health outcomes. Local to global strategies for the prevention and control of these diseases are highlighted.

Specifically, at the end of the course, you will be able to:

1. Demonstrate a basic understanding of the meaning of an ecological perspective of health (including the physical, social and built environments) and relate interdependencies;
2. Demonstrate knowledge of the history and emerging environmental health concerns in human populations; and
3. Demonstrate the ability to apply in-depth technical knowledge to answer questions in the field of environmental health and health geography.

As this is an introductory course, we will cover a number of environmental health topics, but there will be an explicit focus on water – from drinking water quality, to quantity needed for household and livelihood uses.

Readings:

Please read these before class, as indicated. You may need to read some of these items more than once, as some of them may be more difficult to comprehend on the first reading. If changes in the reading schedule seem appropriate during the semester, I may make changes but I will notify you in advance.

Additional readings: (posted on D2L)

- a) Gire et al. "Genomic surveillance elucidates Ebola virus origin and transmission during the 2014 outbreak" *Science* 12 September 2014: 345 (6202), 1369-1372.
- b) Bartram, J. and S. Cairncross (2010). "Hygiene, sanitation, and water: forgotten foundations of health." *PLoS Med* 7(11): e1000367.
- c) Bunch, M., et al. (2011). "Promoting health and wellbeing by managing for social–ecological resilience: the potential of integrating ecohealth and water resources management approaches." *Ecology and Society* 16(1): 6.
- d) "In New Report, IPCC Gets More Specific About Warming Risks" *Science* 4 April 2014: 344(6179): 21.
- e) Hanna-Attisha, M., et al., Elevated Blood Lead Levels in Children Associated With the Flint Drinking Water Crisis: A Spatial Analysis of Risk and Public Health Response. *Am J Public Health*, 2016. 106(2): p. 283-90.
- f) Dorling, D. (2015). "The mother of underlying causes - Economic ranking and health inequality." *Soc Sci Med*.
- g) Kintisch, E. (2014). "In New Report, IPCC Gets More Specific About Warming Risks." *Science* 344: 21.
- h) Sultana, F. (2006) "Gendered waters, poisoned wells: Political ecology of the arsenic crisis in Bangladesh" in *Fluid bonds: Views on gender and water* ed. K. Lahiri-Dutt, pp. 362-386.

Lectures:

These serve to clarify difficult or important portions of the readings and to expand the concepts through applied research findings, and to provide further examples and applications in health geography. It is very likely that important material will be included in the lectures, which is not found in the text or online materials for the course. You are expected to be familiar with the textbook reading assignments, concepts and applications from assignments and material from the lectures for your Mid-term and Final exams.

Estimated hours of preparation per week:

Preparation time for this course outside of class will average about 3-6 hours per week. This will vary from week to week because some weeks you will have more or less work than others.

Exercise information:

Exercises should be completed using Microsoft word and submitted as a soft copy on D2L. I recommend converting the word document to a pdf prior to uploading, as D2L appears to work better with pdf documents. It is your responsibility to ensure it was uploaded correctly. Upload ONE document for each assignment. Failure to follow these directions will result in point penalties.

It is reasonable that you may have a question about grades. If you have a question, do not wait until the end of the semester to ask. To ensure you obtain the appropriate grade for this course:

- Email Dr. Pearson to arrange an appointment **by the deadline for each exercise in the course schedule.**
- Inquiries about exercise grades may not be made past those outlined in this syllabus. All grades are final after these deadlines pass.

Pop quiz information:

Pop quizzes will take place during lectures. No make-up pop quizzes will be permitted.

Exam information:

- The exams will be a combination of short answer, fill in the blank and multiple choice. Preparation of all exams will be conducted in “review” and “summary” sessions preceding both the Mid-term and the Final exams.
- Please bring photo ID and a writing implement to the exams.
- You may not use your cell phone.
- Hats with any type of brim must be removed during the exam.
- Students entering the exam > 15 minutes late will not be permitted to take the exam.
- Students arriving to the exam late, will not be given extra time to complete the exam.
- Students with an excused absence (documented medical issue, university event or religious observance) may be permitted to take a make-up exam. This must be approved by Michael Connelly, Director of Student Affairs and Services. Job and internship interviews are not considered excused absences. Make-up exams must be taken no later than 2 weeks after the originally scheduled exam day and scheduled by the student within one week of the missed exam.
- The final exam is cumulative and will cover content from the entire course.

If the proctor finds you are using any unauthorized materials, electronics or books, you will receive zero points for the exam. If you have concerns about the Mid-Term exam or your exam grade, you have one week for schedule a meeting with Dr. Pearson. If you have a concern about the final exam, you must meet with Dr. Pearson immediately following the final exam, as this is the last day for office hours. **Email communication about exams and grading will not be conducted.**

Office Hours:

The last day for office hours will be the final exam date. It will not be possible to meet with students after this date. This is done in order to provide you with final grades in the timeliest manner possible. Please speak with the professor about all matters, including grades by this date.

Keys to course success:

1. Plan ahead and work ahead. Avoid procrastination.
2. Read the required material before class and re-read important points after class.
3. Make a list of concepts you do not understand.
4. Keep the list of concepts next to you while you take notes in class.
5. Ask questions if a concept you did not understand is not covered in the lecture.
6. Attend office hours or make an appointment to ask questions if you still do not understand the material in class.
7. Complete all assignments in advance of the deadline. Starting assignments the day before they are due is not recommended in this course.
8. Maintain due dates in a calendar with reminders set for this class and other classes.
9. Be proactive! I am here to help. Don't wait until it is too late to get help.

GEO 235 – Introduction to Health & the Environment

Course schedule

Spring, 2018

The following is a tentative outline of the topics to be covered during the quarter. We reserve the right to modify this outline as conditions require.

<u>Date</u>	<u>Day</u>	<u>Topic</u>	<u>Book pages</u>	<u>Due</u>	<u>GQ email</u>
9 Jan	Tue	Introduction, expectations, definitions [L1]	Preface		
11 Jan	Thur	Global inequalities in life expectancy, improvements [L2]	p1-29		
16 Jan	Tue	What is the environment? [L3]			
18 Jan	Thur	History, evolution of microbes [L4]	p30-57, D2L Reading		
23 Jan	Tue	Climate, food availability and infect. disease [L5]	p58 – 87	Ex. 1	30 Jan
25 Jan	Thur	Antimicrobial resistance [L6]	p88-122		
30 Jan	Tue	Emerging inf. diseases, false dichotomy [L7]	p88-122		
1 Feb	Thur	Water, sanitation and health [L8]	D2L Reading	Ex. 2	8 Feb
6 Feb	Tue	Built env: Food access and health, handout [L9]	p123-151		
8 Feb	Thur	Physical env: Air and water pollutants – chemical [L10]	p152-184		
13 Feb	Tue	“Resistance” – watch on your own (no class)			
15 Feb	Thur	Microbes, the microbiome [L11]			
20 Feb	Tue	Physical env: Lead pollution [L12]	D2L Reading		
22 Feb	Thur	In-class exercise 1 [L13]			
27 Feb	Tue	Review [L14]		Extra Credit	
1 Mar	Thur	MIDTERM EXAM – in class			
		SPRING BREAK (5 March to 9 March)			
13 Mar	Tue	Modern diet and disease risks, in class feedback [L15]	p.220-249	Ex. 3	20 Mar
15 Mar	Thur	Physical env blue and green spaces [L16]	p250-282		
20 Mar	Tue	Urban places: social conditions, aging, family plan [L17]	p250-282		
22 Mar	Thur	Urban places: social conditions, inequalities [L18]	D2L Reading		
27 Mar	Tue	Global change I [L19]	p283-317		
29 Mar	Thur	Global change II [L20]	p283-317		
3 Apr	Tue	Global change III - in class exercise [L21]	D2L Reading		
5 Apr	Thur	Gene-environment interactions [L22]			
10 Apr	Tue	Environmental justice movement [L23, online partic.]	TBA	Ex. 4	17 Apr
12 Apr	Thur	Practise test [online]			
17 April	Tue	Knowledge to action, being a health geographer [L24]			
19 Apr	Thur	Political ecology of health [L25]	p318-340, D2L Reading		
24 Apr	Tue	Final review			
26 Apr	Thur	Open study day (no class)			
2 May	Wed	FINAL EXAM – in class 10:00am - 12:00pm			

Relevant policies

1. Expectations for success

Students are expected to attend class on time, read the required material before class on the date assigned, and complete work in a timely manner.

- It is also anticipated that students will be active participants in class. The instructor will make an effort to encourage student engagement with the material.
- Students are encouraged to communicate with the instructor if issues arise with course material and/or any other issue that hinders their ability to complete course work.

2. Requirements for communication via email

Electronic mail (email) will be used for communication of errata and other announcements that are of interest to the general class. I will use the email address supplied by the university course registration list. It is the student's responsibility to ensure that they are receiving emails at their desired email address.

- An MSU email account is required for this course. Please make sure you are able to access your MSU email.
- Please include GEO 235 in the subject line of your email.
- Dr. Pearson will not respond to emails sent from non-MSU accounts.
- The content of emails is a professional exchange and thus the content should be professional in nature. This pertains to communications between colleagues in class and the instructor.
- Acronyms, abbreviations, and emoticons should be avoided in professional communications.
- Email should be used to verify meeting times and other kinds of short communications.
- Extensive questions about course material should be reserved for office hours.
- **I will also not discuss grades over email due to privacy concerns.** This should be done in office hours.
- Please allow 48 hours for a response to email during the week. Email will not be checked on weekends or after 5pm.
- If you do not receive a response to an email, please speak with me in person. Emails can be missed due to the large number of emails received. A non-response is not intentional.

3. Attendance policy

As noted above, attendance at all lectures are required. However, failure to attend the lectures will not count against your overall grade. Please note that pop quizzes and in class exercises require attendance.

4. Turning in assignments and late policy

All homework assignments (exercises) will be due the date indicated above, unless modified by me. Assignments must be loaded into the D2L Dropbox by 5pm on the date indicated or will receive a penalty. Each 24hour period thereafter receives -33% off that assignment's value. **DO NOT put an assignment in my mailbox.** We reserve the right to grade only selected portions of the written homework. If you would like to make a request for an extension or modified due date, you must receive approval from Michael Connelly, Director of Student Affairs and Services.

5. Academic integrity

Article 2.3.3 of the Academic Freedom Report states, "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades and professional standards."

6. Disability accommodation requests statement

Michigan State University is committed to providing equal opportunities for participants in all programs. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at rcpd.msu.edu (884-RCPD). Once your eligibility for an accommodation has been determined, you will be issued a verified individual services accommodation (VISA) form. Please present this form to me at the start of the term and/or two weeks

prior to the accommodation date (test, project, etc). Requests received after this date will be honoured whenever possible. Please feel free to visit me during my office hours to discuss.

7. Use of social media

As members of a learning community, students are expected to respect the intellectual property of course instructors. All course materials presented to students are the copyrighted property of the course instructor and are subject to the following conditions of use:

1. Students may record lectures or any other classroom activities (including photographs) and use the recordings only for their own course-related purposes.
2. Students may share the recordings with other students enrolled in the class. Sharing is limited to using the recordings only for their own course-related purposes.
3. Students may not post the recordings or photographs or other course materials online or distribute them to anyone not enrolled in the class without the advance written permission of the course instructor and, if applicable, any students whose voice or image is included in the recordings.
4. Any student violating the conditions described above may face academic disciplinary sanctions.

8. Emergency information

In an event of an emergency arising within the classroom setting, the professor/instructor will notify the students of actions that may be required to ensure their safety. It is the responsibility of each student to understand the evacuation or 'shelter-in-place' guidelines posted in each facility and to act in a safe manner. If an evacuation is ordered, please ensure that you do it in a safe manner and facilitate those around you that may not otherwise be able to safely leave. You are allowed to maintain cellular devices in a silent mode during this course, in order to receive emergency messages distributed by the university. When a student receives such a notification or observes an emergency situation, they should immediately bring it to the attention of the professor/instructor in a way that least alarms your fellow students.