### Geography 346 (Fall 2014) - Geographies of Environment and Health

Instructor: Dr. Eleanor Setton (elsetton@uvicssrl.ca)

Office: B318 David Turpin Building Hours: Mondays 2:30 – 4pm or by apt.

Lectures: MacLaurin Building D110, Monday and Thursday 1:00 - 2:20pm

**Course Materials:** All course materials will be available on CourseSpaces (Moodle). There is no assigned text.

Course Overview and Outline: The field of medical geography encompasses a wide range of research areas, from the study of the social determinants of individual health and the distribution of and health services, to regional comparisons of disease rates and spatial approaches to identifying the intersections between people and environmental pollutants. This course focuses specifically on the latter topics, and will present geographic contributions to the study of human health by introducing quantitative methods for investigating 1) spatial patterns in health and wellness, and 2) human exposure to environmental pollutants and the associated health impacts.

The first half of the course introduces key concepts in geographical approaches to studying human health, supported by selected readings. The second half of the course presents case studies on a range of topics. Case studies will provide an overview of the topic and present current research using the methods reviewed in the first half of the course.

By the end of this course, you should:

- have an increased understanding of current issues in environment and health;
- have an appreciation for the strengths and weaknesses of different quantitative methods for adding to our knowledge about inequities in human health and impacts of environmental pollutants;
- demonstrate progress in finding and identifying where academic literature fits within the environmental health research framework;
- be able to synthesize relevant academic literature to critically discuss contemporary issues in the environment and health realm.

**Attendance:** Students are expected to attend lectures. Attendance for the mid-term and final exams is mandatory. Exceptions will be made only if the instructor has been informed in person at least 2 weeks before the time of the exam that an absence will occur AND the student has proper written documentation of a serious medical or compassionate cause for the absence.

**Late Assignments:** Late assignments will NOT BE ACCEPTED unless arrangements are made in advance with the Instructor.

### Assignments and grading

Midterm: 25%

Reading notes (4): 20% Group presentation: 25%

Final exam: 30%

# ADDITIONAL DETAILS AND INSTRUCTIONS WILL BE PROVIDED DURING CLASS

Midterm (25%): The midterm exam will take place during class hours and will consist of short and long answer questions.

Reading notes (20%): You must sign up for four case study topics of your choice (space permitting). You must locate a relevant academic paper and provide a written synopsis (3 pages double spaced maximum), and make a 1 minute verbal presentation during class. Written reading notes are due at 9am on the day of the lecture covering your chosen topic.

Group presentation (25%): Working in small groups, you will develop a topic not covered in class, identify at least 6 relevant academic papers, and deliver a 20 minute presentation including an overview of the topic, a synthesis of the papers and how they add to our knowledge about the issue, a summary of how space/place are important/included, and a conclusion that highlights future research needs.

Final Exam (30%): The final exam, to be scheduled after the last class, will consist of short and long answer questions. All materials will be examinable.

## **Grading Scheme:**

A+	Α	A-	B+	В	B-	C+	С	D	F
90-100%	85-89%	80-84%	77-79%	73-76%	70-72%	65-69%	60-64%	50-59%	0-49%

### **Course Experience Survey (CES)**

I value your feedback on this course. Towards the end of term, as in all other courses at UVic, you will have the opportunity to complete an anonymous survey regarding your learning experience (CES). The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future. The survey is accessed via MyPage and can be done on your laptop, tablet, or mobile device. I will remind you and provide you with more detailed information nearer the time but please be thinking about this important activity during the course.

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# PRELIMINARY – SCHEDULE AND TOPICS MAY CHANGE

Date	Topic	Readings/Assignments				
Sept 4	Course overview, objectives, assignments					
Theme: Studying geographic distributions of health and wellness						
Sept 8	Introduction to medical geography	Listed on CourseSpace				
Sept 11	Global patterns of health					
Sept 15	Local health inequities and wellness					
Sept 18	Disease clusters					
Sept 22	Methodological issues					
Theme: Linking environmental pollution to human health impacts						
Sept 25	Exposure assessment	Listed on CourseSpace				
Sept 29	Environmental epidemiology and risk assessment					
Oct 2	Video: Endocrine disrupting chemicals					
Oct 6	Environmental modelling of pollutants					
Oct 9	Methodological issues & Midterm review					
Oct 13	Thanksgiving					
Oct 16	MID-TERM EXAM					

Case Studies						
Oct 20	Fine particulate air pollution (PM <sub>2.5</sub> )	Submit notes by 9am				
Oct 23	Traffic-related air pollution	u u				
Oct 27	Wood smoke	u u				
Oct 30	Industrial emissions	u u				
Nov 3	Asbestos	u u				
Nov 6	Radon	u u				
Nov 10	Reading break					
Nov 13	Arsenic	u u				
Nov 17	Alberta oil sands cancer cluster	u u				
Nov 20	Extremely low frequency magnetic fields	u u				
Nov 24	Presentations	Presentation due				
Nov 27	Presentations	Presentation due				
Dec 1	Course review					
TBA	FINAL EXAM – to be scheduled during exam period					