

**THE UNIVERSITY OF VICTORIA
DEPARTMENT OF GEOGRAPHY**

Course Outline - Fall 2016

GEOGRAPHY 346- GEOGRAPHY OF ENVIRONMENT AND HEALTH

INSTRUCTOR: Dr. Aleck S. Ostry **Office:** B314 – Social Science and Math Bldg

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I. PROFESSOR AND COURSE ORGANIZATION

ALECK OSTRY- CONDENSED BIOGRAPHY:

Dr. Ostry is a Professor in the Faculty of Social Sciences at the University of Victoria. He holds a Canada Research Chair in the Social Determinants of Community Health and he is also a Michael Smith Foundation for Health Research Senior Scholar. He has an MSc in Health Service Planning, an MA in History (specializing in the history of public health), and a PhD in Epidemiology. He conducts a broad research and teaching program on the social determinants of health within an historical and geographical framework.

Location of Weekly Lectures and Time Slot:

Elliot 162; Monday and Thursday 1:00 – 2:20 pm

Office Hours:

Email Dr. Ostry if you'd like an appointment.

Lecture Power-point Slides:

These are available on the University of Victoria's Moodle usually within a day after each lecture.

Course Readings:

Readings related to each lecture are available on the University of Victoria's Moodle.

II. COURSE OUTLINE & OVERVIEW:

Geographic focus:

The geography of this course provides a basic background to environmental health geography with a focus on food security and climate change.

Course Description:

Present day pressures placed on environments through the expansion of the human population, development activities, and the rapidity of change in global climate warrants special attention to linkage between the environment (physical and social) and human health. Specifically, humans have forever altered their interaction with their environments, and as a result, have produced both direct adverse health effects and more indirect ones that operate through complex pathways. This first third of the course explores basic principles of environmental health geography with a focus on impacts of social, cultural, and work environments on human health.

Arguably, two of the most important environmental factors at work in BC, in terms of their impact on human health are due to the impacts of agriculture and mining/energy extraction in the province. In the second third of the course we focus on the agriculture. The principles learned in the first half of the course are applied to an in-depth investigation of the links between how we grow our food, environmental change, and human health. We explore more fully the regional food security situation in BC both in relation to human health and in relation to environmental impacts including climate change. The final third of the course focuses on the impact of mining and energy extraction industries in BC on human health. In considering impacts of agriculture on food security and health and impacts of mining/energy extraction on health we use examples from our current research.

Prerequisites:

Minimum grade of B- in GEOG 211. An undergraduate course in statistics or a basic understanding of statistical concepts will be helpful.

Main Textbook:

BC Atlas of Health and Wellness available on geography department web site.

Additional Readings:

Canadian Institute for Health Information. 2006. *How Healthy are Rural Canadians? An Assessment of Their Health Status and Health Determinants*. Ottawa: Canadian Institute for Health Information.

Environmental Assessment Office, 2010. Environmental Assessment Office User Guide, Government of British Columbia, Victoria, BC, April, 2010.

Forget, G., and Label, J. 2001. An ecosystem approach to human health. *International Journal of Occupational and Environmental Health*, Supplement to 7(2):S3-S36.

Ostry A, and Morrison K. 2008. Developing and Utilizing a Database for Mapping the Temporal and Spatial Variation in the Availability of “Local Foods” in British Columbia. *Environments Journal* (Special Issue on Food and Environment), 36(1):21-33.

United Nations, Department of Economic and Social Affairs, Population Division (2009): World Population Prospects: The 2008 Revision. New York - Executive Summary (pg. **xix – xxvi**) + Canada (pg. 172 Table A. Estimates).

Course components for evaluation :

Mid-term Exam (25%)

Essay (35%)

Final Exam (40%)

III. COURSE POLICIES

1. **Attendance:** Regular attendance and class participation is expected. Students coming to class late or needing to leave early must minimize disruption. Students are expected to critically read the assigned articles prior to attending lectures.
2. **Lateness Policy:** Unless an extension has been granted in advance, late assignments will be marked down one-third of a letter grade for each day late. An “A” paper that is one day late, for example, will receive an “A-“.
3. **University of Victoria’s Policy on Inclusivity and Diversity:** The University of Victoria is committed to promoting, providing and protecting a positive, supportive and safe learning and working environment for all its members.
4. **Evaluations:**
 - **EXAMS:**

The mid-term exam is worth 25% and is scheduled during class time. The final exam, worth 40 % will be scheduled sometime after the last class. The date for the final exam is usually posted by mid-November.

***NOTE:** Attendance for the mid-terms and final examinations are mandatory. Exceptions will be made only under the following conditions:

- the instructor has been informed in person at least 2- weeks before the time of the exam or due date for the research assignment that the absence will occur.
- the student has proper written documentation of a serious medical or compassionate cause for the absence and presents this to the instructor at least 2-weeks before the exam or due date for the research assignment.
- **INSTRUCTIONS FOR ESSAY – DUE NOVEMBER 4th:**
 - The essay is worth 35% of the mark.
 - The essay should be a maximum of 5 pages double spaced and typed, including references with 1" margins and a 12-point font.
 - In the essay you will critically review ONE of the selected readings for the class. Using this article as the basis of your review you must also find an additional TWO academic articles (for a total of THREE articles) that build on this topic that you find of interest. The two extra articles reviewed must be from academic journals associated with the discipline of health geography, such as *Health & Place* and *Social Science & Medicine*.
 - Students are expected to adhere to proper academic writing and referencing styles, as well as critically analyze articles as opposed to simply summarizing results. Students are advised to consult the following articles on critically reading academic articles for further instruction.
 - Essays will be graded on organization; use of proper grammar, sentence structure and spelling, and critical writing skills.
- **CLASS PARTICIPATION:** Students are expected to come to each class. This is particularly important as this course does not have an assigned text book. The instructor will NOT give out his notes or lectures to students who miss lectures. In addition students are expected to actively participate in class discussions.

5. Grading Scale:

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

Undergraduate Grading Description

<i>Passing Grades</i>	<i>Description</i>
A+ A A-	Exceptional, outstanding and excellent performance. Normally achieved by a minority of students. These grades indicate a student who is self-initiating, exceeds expectation and has an insightful grasp of the subject matter.
B+ B B-	Very good, good and solid performance. Normally achieved by the largest number of students. These grades indicate a good grasp of the subject matter or excellent grasp in one area balanced with satisfactory grasp in the other area.
C+ C C-	Satisfactory, or minimally satisfactory. These grades indicate a satisfactory performance and knowledge of the subject matter.

D	Marginal Performance. A student receiving this grade demonstrated a superficial grasp of the subject matter.
COM	Complete (pass). Used only for 0-unit courses and those credit courses designated by the Senate. Such courses are identified in the course listings.

** As stated in the 2011-2012 Calendar

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.

Lecture Outline

Class Date	Topic
Sept 10 th	<u>Class Organization</u> Introduce students to the course topic; description of course content; explanation of the essay, exam schedule, and marking scheme.
Sept 14 th	<u>Genes, the Environment, and Human Health</u> How important are environmental factors in producing human health? The case of gene-environment interactions.
Sept 17 th	<u>What Dimension of “Environment” Matter to Improve Coronary Heart Disease Outcomes?</u> OR- How changing lifestyle, smoking, and diet may not be the whole story.
Sept 21 st	<u>What Dimension of “Environment” Matter to Improve Infant Health Outcomes:</u> an Example from Canadian Historical Geography
Sept 24 th	<u>What Dimension of “Work Environment” Matter to Improve Health Outcomes and How Have these changed over the Past 150 Years</u>
Sept 28 th	<u>The Contribution of Stress to Unhealthy Work Environments</u>
Oct 1 st	<u>The cultural/social environment</u> –Examples from the BC
	<u>MIDTERM REVIEW</u>
Oct 5 th	<u>MIDTERM</u>
Oct 8th	<u>Agriculture, Food and Health Part 1:</u> Historical change in agricultural practices and impacts of these on human health to the 19 th century.
Oct 12th	Thanksgiving NO CLASS
Oct 15th	<u>Agriculture, Food and Health Part 2:</u> Modern agricultural systems, food production methods, and human health.
Oct 19th	<u>Food Security and Health Part 1</u> Food security a link between environment, agriculture and human health.
Oct 22 nd	<u>Food security Part 2</u> How changes in food production and price impact the health of human populations
Oct 26th	<u>Food Security Part 3</u> Global and local food price increases. Protecting the vulnerable and improving food security while doing no harm to the environment
Oct 29th	<u>Climate Change and Health in BC</u> What are the likely impacts of climange on human health in BC?
Nov 2nd	<u>Food Security, Climate Change and Health in BC Part 1</u> While we know something of the impacts potentially, of climate change on human health how are these environmental changes likely to impact the food security of British Columbians
Nov 5th	<u>Food Security in BC Part 1:</u>

	<u>Estimating Regional Food Security in BC</u> How food secure is British Columbia? How do we estimate food security in the different regions of the province? Are these geographic research methods generalizable?
Nov 9th	<u>The cultural/social environment – health impacts of poverty and socioeconomic inequality.</u> Examples from the BC forestry industry
Nov 12 th	<u>Remembrance Day Holiday</u>
Nov 16 th	<u>The Impact Assessment process:</u> This lecture will provide an overview of the environmental/social and health impact assessment processes required for permitting major development activities to protect human health. Global case studies will be reviewed.
Nov 19 th	<u>Introduction to the extractive industry:</u> What is the extractive industry? What are the key differences between mining, oil, and unconventional/conventional gas development? How is the extractive industry relevant to Canada and to BC?
Nov 23 rd	<u>The extractive industry and Indigenous Peoples:</u> This lecture will provide an introduction to the environmental and cultural health tension points that exist between Indigenous Peoples and the Extractive Industry. Case studies from around the globe and BC will be elaborated on.
Nov 26 th	<u>Health Impacts associated with the extractive industry:</u> What are the known health impacts associated with mining? What are the known health impacts associated with oil and gas? What is being done by industry to mitigate these impacts?
Nov 30th	<u>Mitigating health impacts associated with extractive industry development projects in British Columbia:</u> This lecture will provide an overview of a cutting edge research project focused on mitigating health impacts to communities associated with the extractive industry in BC. This project is led by researchers at the University of Victoria in partnership with three BC communities.
Dec 3rd	Final Review