

GEOG 9107/A ENVIRONMENT AND HEALTH

Course Outline: Section 001 Fall 2018

1. Course Information

1.1. Classroom Location:

Class Location and Time:

SSC 2322E, Tuesdays from 1-4pm

1.2. Contact Information:

Instructor: Isaac Luginaah

Office: SSC 1049

Office Hours: 1-3pm, or by appointment

Phone: 519-661-5111 x86944

Email: iluginaa@uwo.ca

The Department of Geography strives at all times to provide accessibility to all faculty, staff, students and visitors in a way that respects the dignity and independence of people with disabilities. Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 519-661-2147 for any specific question regarding an accommodation.

More information about "Accessibility at Western" is available at: <http://accessibility.uwo.ca>

2. Calendar Description

Course Description

The conceptual frameworks for environmental health research and policy analysis. Appraisal of methods of deriving and substantiating evidence in environment and health research. Approaches to environmental health policy formulation and the uses of evidence in the environmental health policy arena.

There are no prerequisites for this course.

3. Course Objectives

- Examine conceptual frameworks for environmental health research and policy analysis
- Appraise methods of deriving and substantiating evidence in environmental health
- Review approaches to environmental health policy formulation
- Examine the uses of evidence in the environmental health policy arena
- Carry out critical research and analytic policy projects

4. Learning Outcomes

Students will understand the complexities involved in environment and health issues, and also develop critical thinking abilities on the relationship between science and policy.

5. Evaluation

- There will be two written papers worth 45 percent each. The first, due on Tuesday, October 30, 2018, will emphasize research and the second, due on Tuesday, December 17, 2018, will focus on policy.
- Participation in class will be worth 10%, it is expected that all students will be fully prepared for class and will participate fully in class discussion.

Evaluation Component	Percentage of Course Grade	Assignment Due Date
Paper 1	45%	October 30, 2018
Paper 2	45%	December 17, 2018
Participation	10%	

Students are responsible for material covered in the lectures as well as the assigned chapters/sections in the text. Students are **REQUIRED TO COMPLETE ALL COMPONENTS** of this course. There are no exceptions to this. Extra assignments to improve grades will **NOT** be accepted.

Grades will not be adjusted on the basis of need. It is important to monitor your performance in the course. Remember: *You* are responsible for your grades in this course.

6. Lecture Schedule

Session	Date	Topic (Case Study topics may change depending on the interest of the students in the course)
	Sept 11	Introduction
Session 1	Sept 18	Population Health I
Session 2	Sept 25	Design, Measurement and Evaluation I
Session 3	Oct 2	Design, Measurement and Evaluation II
	Oct 9	Reading Week
Session 4	Oct 16	Case Study: TBA
Session 5	Oct 23	Case Study: TBA
Session 6	Oct 30	Case Study: TBA
Session 7	Nov 6	Policy Analysis and Policy Argument
Session 8	Nov 13	Evidence, Policy and Policy Learning
Session 9	Nov 20	Policy Narratives and Policy Framing

Session	Date	Topic (Case Study topics may change depending on the interest of the students in the course)
Session 10	Nov 27	National and Provincial Policies
Session 11	Dec 4	Policymaking Under Pressure

A reading list for each session will be distributed a Session in advance (see attached for sessions).

7. University Policy Regarding Illness

7.1. Illness

Please visit the link to the university policy for more information.

<http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=- Page 12>

If you feel that you have a medical or personal concern that is interfering with your work, you should contact your Instructor, Graduate Program Administrator, Supervisor, or SGPS.

7.2. Attendance

It is expected that students will attend all classes. The professor does not provide access to lecture notes. Students are encouraged to obtain missed lecture notes from a fellow student.

8. Scholastic Discipline for Graduate Students

For the complete policy and regulations see:

http://grad.uwo.ca/current_students/regulations/13.html

9. Procedures for Appealing Academic Evaluations

Students may appeal an academic decision or ruling in accordance with the appeal procedures set out below. Students have a right to appeal to their graduate programs and, if unsuccessful, to the Vice-Provost (Graduate and Postdoctoral Studies). Some decisions may be appealed further to the Senate Review Board Academic. The Vice-Provost's rulings in academic matters are final unless overturned or modified on appeal to the Senate Review Board Academic (SRBA).

For the complete policy and regulations see:

http://grad.uwo.ca/current_students/regulations/13.html

10. Support Services

10.1. Support Services

Student Support Services can be reached at: <http://westernusc.ca/services/>

Student Development Services can be reached at: <http://www.sdc.uwo.ca/>

Students who are in emotional/mental distress should refer to Mental Health@Western http://www.health.uwo.ca/mental_health/ for a complete list of options about how to obtain help.

10.2. Short Absences

If you miss a class due to minor illness or other problems, check your course outline for information regarding attendance requirements and make sure you are not missing a test or exam. Cover any readings and arrange to borrow the missed lecture notes from a classmate.

10.3. Extended Absences

If you expect to be away from campus for an extended amount of time, please make prior arrangements with your course instructors and/or supervisor.

For the complete policy on registration, see:

http://grad.uwo.ca/current_students/regulations/4.html

10.4. Academic Concerns

If you are in academic difficulty, it is strongly recommended that you see your Graduate Program Administrator, Supervisor, or SGPS.

11. Important Dates:

September 6: Classes resume

September 14: Last day to add a full course or a second term half course

October 8: Thanksgiving Holiday – Department Office Closed

October 9-12: Fall Reading Week (No classes; Department Office open)

November 12: Last day to drop a first term half course without penalty

November 30: Last day to drop a full course without academic penalty

December 7: Classes end

December 8 and 9: Study days

December 10-21: Examination Period

December 21: Fall term

12. Other Information

For a list of Graduate Regulations please visit:

http://www.grad.uwo.ca/current_students/regulations/index.html

For The University of Western Ontario Senate Regulations, please see the Handbook of Academic and Scholarship Policies at: http://www.uwo.ca/univsec/academic_policies/index.html

Email Policies

Please respect the fact that Professors receive multiple emails from students and will deal with those emails in a fair, organized and timely manner. Please ensure the subject line contains the name, number and section of the course in question.

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SESSION 1

POPULATION HEALTH I

The population health perspective which maintains that many factors - including environment - are associated with health and well-being. We begin with Evans and Stoddart who were among the first to provide rigorous argument for health being produced by more than the availability of medical care. Such arguments have shaped both the clinical and epidemiological as well as the social scientific examination of what is health, disease and illness as the readings by Krieger, Mordacci and Wilkinson attest.

1. Evans, R.G. and Stoddart, G.L. 1990. Producing health, consuming health care. *Social Science and Medicine*, 31, 1347-63.
2. Krieger, N. 1994. Epidemiology and the web of causation: has anyone seen the spider? *Social Science and Medicine*, 39, No.7, pp. 887-903.
3. Kovács, J. (1998). The concept of health and disease. *Medicine, Health Care and Philosophy*, 1(1), 31-39.
4. Wilkinson, R.G. 1996. *Unhealthy Societies: the afflictions of inequality*. London: Routledge, 13-28.

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SESSION 2

DESIGN, MEASUREMENT AND EVALUATION I: DESIGN AND METHOD

In these next two sessions we shall look at design, measurement and evaluation issues. This Session we concentrate on designs utilized for environment and health research. First, we review basic epidemiologic research strategies. Morgenstern reviews the ecologic method while Hennekens and Buring outline individual respondent-based designs. Engel calls for the need for a new medical model, Brown makes a case for qualitative environmental health research. Wakefield and colleagues study air pollution from the point of view of community action, risk perception, social capital and attachment to place.

1. Brown, P. 2003. Qualitative Methods in Environmental Health Research, *Environmental Health Perspectives*, 111(No. 14 Nov., 2003): 1789-1798.
2. Engel, G. (1977). The need for a new medical model: A challenge for biomedicine. *Science* 196 pp. 129-136
3. Hennekens, C. and Buring, J., 1987, *Epidemiology in Medicine*, Boston: Little Brown, 31-52. **Call #: WA950.H515e 1987 Taylor Lib**
4. Morgenstern, H. 1995. Ecologic studies in epidemiology: Concepts, Principles, and Methods, *Annual Reviews of Public Health*, 16, 61-81.

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SESSION 3

DESIGN, MEASUREMENT AND EVALUATION II: INTERPRETATION AND
EVALUATION OF EVIDENCE

In this second session on design, measurement and evaluation, we will examine how different methods lead to different types of evidence and assess the ways of enduring the validity or trustworthiness of that evidence. We begin broadly with Hage and Meeker who address 'causality' in 'social' research which has relevance for environment and health. We then turn to Bradford Hill who established criteria for assessing the association between environment and health, while Baum, writing from the point of view of public health practitioners, points out that nature of different sorts of evidence and their philosophical and practical bases. The remaining two papers are concerned with the interpretation and interpretability of epidemiologic evidence more directly and point out the specific "biases" of various study designs for making health to environment links - Frank et al. and Ozonoff.

1. Bradford Hill, A. 1965. The environment and disease: association or causation? *Proceedings of the Royal Society of Medicine*, 58, 295-300.
2. Frank, J. W., Gibson, B. et al. 1988. Information needs in epidemiology: detecting the health effects of environmental chemical exposure. In Fowle, C. et al. (eds) *Information needs for Risk Management* (pp. 129-145). Toronto, Institute for Environmental Studies Monograph No. 8. University of Toronto.
3. Hage, J. and Meeker, B. 1988. *Social Causality*. Boston: Unwin Hyman, 1-33. Weldon Library – HM24.H329 1988
4. Ozonoff, D. 1994. Conceptions and misconceptions about human health impact analysis. *Environmental Impact Assessment Review*, 14, 499-515.

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SESSION 4

ENVIRONMENTAL EXPOSURE/ENVIRONMENTAL (RE)POSSESSION

1. Corntassel, J. (2012). Re-envisioning resurgence: Indigenous pathways to decolonization and sustainable self-determination. *Decolonization: Indigeneity, Education & Society*, 1(1).
2. Runyan, A. S. (2018). Disposable waste, lands and bodies under Canada's gendered nuclear colonialism. *International Feminist Journal of Politics*, 20(1), 24-38.
3. Hamlat, S., Thompson, P., Rinker, M., St-Amant, N., Pan, P., Peters, K., ... & Sauvé, K. (2018). Independent environmental monitoring and public dose assessment around the Canadian Nuclear Power Plants. *Journal of Radioanalytical and Nuclear Chemistry*, 317(1), 325-335.
4. Owens, S., & Driffill, L. (2008). How to change attitudes and behaviours in the context of energy. *Energy policy*, 36(12), 4412-4418.
5. Painuly, J. P. (2001). Barriers to renewable energy penetration; a framework for analysis. *Renewable energy*, 24(1), 73-89.

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SESSION 5

URBAN HEALTH/ADOLESCENTS HEALTH

1. Northridge, M. E. et al. (2003) Sorting Out the Connections Between the Built Environment and Health: A Conceptual Framework for Navigating Pathways and Planning Healthy Cities. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 80(4): 556-568.
2. Bloemsa, L. D., Gehring, U., Klompaker, J. O., Hoek, G., Janssen, N. A., Smit, H. A., ... & Wijga, A. H. (2018). Green Space Visits among Adolescents: Frequency and Predictors in the PIAMA Birth Cohort Study. *Environ Health Perspect.*, 126 (4): 047016.
3. Cunha, D. B., Bezerra, I. N., Pereira, R. A., & Sichieri, R. (2018). At-home and away-from-home dietary patterns and BMI z-scores in Brazilian adolescents. *Appetite*, 120, 374-380.
4. Oddy, W. H., Allen, K. L., Trapp, G. S., Ambrosini, G. L., Black, L. J., Huang, R. C., ... & Mori, T. A. (2018). Dietary patterns, body mass index and inflammation: Pathways to depression and mental health problems in adolescents. *Brain, behavior, and immunity*, 69, 428-439.
5. Chourabi, H., Nam, T., Walker, S., Gil-Garcia, J. R., Mellouli, S., Nahon, K., ... & Scholl, H. J. (2012, January). Understanding smart cities: An integrative framework. In System Science (HICSS), 2012 45th Hawaii International Conference on (pp. 2289-2297). IEEE.

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SESSION 6

Food Waste/Food Security/HIV

1. Rosegrant, M. W. & Cline, S. A. (2003) Global Food Security: Challenges and Policies. *Science*, 302(12): 1917-1919.
2. Carr, E. R. (2006) Postmodern conceptualizations, modernist applications: Rethinking the role of society in food security. *Food Policy*, 13: 14-29.
3. Hebrok, M., & Boks, C. (2017). Household food waste: Drivers and potential intervention points for design—An extensive review. *Journal of Cleaner Production*, 151, 380-392.
4. Parizeau, K., von Massow, M., & Martin, R. (2015). Household-level dynamics of food waste production and related beliefs, attitudes, and behaviours in Guelph, Ontario. *Waste Management*, 35, 207-217.
5. Friedman, W. H. (2018). Antiretroviral drug access and behavior change. *Journal of Development Economics*, 135, 392-411.
6. Kohler, J. C., Chang Pico, T., Vian, T., & Mackey, T. K. (2018). The Global Wicked Problem of Corruption and Its Risks for Access to HIV/AIDS Medicines. *Clinical Pharmacology & Therapeutics*. <https://doi.org/10.1002/cpt.1172>

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SESSION 7

POLICY ANALYSIS AND POLICY ARGUMENT

With this Session's readings we leave the treatment of research as research and confront the nature of the policy-making process. Pal (chapter 2 and 3) provides a basic outline of policy analysis from a theoretical and evaluative standpoint. Torgerson extends the argument by arguing that there is not one but three types of policy analysis, all being based on a different relationship between knowledge and politics. Dunn identifies different types of policy argument. A policy argument is the way in which information is transformed into policy claims. But information can be treated in different ways by different stakeholders leading to conflicting definitions and explanation.

1. Pal, L.A. 1992. *Public Policy Analysis: An Introduction*. Nelson, Scarborough, Weldon Library - **H97.P34 1992**

Chapter 2
Chapter 3
2. Dunn, W.N. 1994. *Public policy analysis: An introduction*. Prentice-Hall, Englewood Cliffs.
Chapter 4
Chapter 5
3. Torgerson, D. (1986) Between Knowledge and politics: three faces of policy analysis. *Policy Sciences*, 19, 33-59. Weldon Library - **H1.P7**

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SESSION 8
EVIDENCE, POLICY AND POLICY LEARNING

Throughout the course, we have often found reference to equivocal evidence and decision-making under uncertainty. In this session, we examine the problematic relationship between science and politics. Harrison discusses this in the context of dioxin risk as seen by Canada and the United States. Aronson sees science as a claims-making activity. Sabatier takes a slightly different, and somewhat more optimistic, approach to policy analysis than many in his advocacy coalition framework which emphasizes the idea of policy learning. Flueller provides an example of how that framework relates to the issue of radioactive waste disposal, an issue with provide environment and health implications.

1. Aronson, N. 1994. Science as a claims-making activity: Implications for social problems research, J. Schneider and J. I. Kitsuse (eds.) *Studies in the Sociology of Social Problems*. Norwood, N. J: Ablex. 1-30. **Call #: HM51.S929 1984.**
2. McMullan, C. and Eyles, J. 1999. Risky business: An analysis of claimsmaking in the development of an Ontario drinking water objective for tritium. *Social Problems*, vol. 46, no. 2, 294-311.
3. Harrison, K. 1991. Between science and politics: assessing the risks of dioxins in Canada and the United States. *Policy Sciences*, 24, 367-88
4. Kukkonen, A., Ylä-Anttila, T., Swarnakar, P., Broadbent, J., Lahsen, M., & Stoddart, M. C. (2018). International organizations, advocacy coalitions, and domestication of global norms: Debates on climate change in Canada, the US, Brazil, and India. *Environmental Science & Policy*, 81, 54-62.
5. Sabatier, P.A. 1987. Knowledge, policy-oriented learning and policy change. *Knowledge: Creation, Diffusion, Utilization*, 8, 649-92. **Weldon Ref: Photocopy 3878.**

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SESSION 9
POLICY NARRATIVES AND POLICY FRAMING

In this session, we explore the issues of contextualizing policy arguments and analyses through narrative and framing. Roe provides a structure for seeing policy debates as narratives, exemplified by global warming. This is taken on by Garvin and Eyles in their analysis of claims made to produce a sun safety metanarrative. Cook et al. demonstrate how context frames policy responses while Jasanoff extends the argument through highlighting cross-national differences in policy implementation.

1. Cook, B.J., Ernel, J.L. and Kasperson, R.E. 1991. A problem of politics or technique? Insights from waste-management strategies in Sweden and France. *Policy Studies Review*, 10(4), 103-110. **Photocopy # 3485**
2. Garvin, T. and Eyles, J. 1997. The sun safety metanarrative. *Policy Sciences*, 30, 47-70. **Online**
3. Jasanoff, S. 1991. Cross-national differences in policy implementation. *Evaluation Review*, 15, 103-19. **Call #: HM1.E8.**
4. Roe, E. 1994. *Narrative Policy Analysis: Theory and Practice..* Duke UP, Durham, Introduction and chapters 2 and 6. **Call #: H97.R638 1994**
5. Pardo, B. (2014). Cannabis policy reforms in the Americas: a comparative analysis of Colorado, Washington, and Uruguay. *International Journal of Drug Policy*, 25(4), 727-735.

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SESSION 10
NATIONAL AND PROVINCIAL POLICIES

In this session, we shall look at source documents that try to formulate ... policies at the national and international levels. To interrogate these documents, the tools and ideas obtained in Session 8-10 will be useful. First we examine the Canadian Federal government's strategic plan (2003-2008) for pesticides management, and the government's response to a report by the House of Commons Standing Committee on the Environment and Sustainable Development. Harrison presents an elaborate account of climate change policy in Canada and United States.

Pest Management Regulatory Agency 2008. *Strategic Plan 2003 to 2008*. Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services Canada 2004.

http://www.pmra-arla.gc.ca/english/pdf/plansandreports/pmra_strategicplan2003-2008-e.pdf

Pest Management Regulatory Agency 2008. Strategic Plan 2008 to 2013.

http://www.hc-sc.gc.ca/cps-spc/alt_formats/pacrb-dgapcr/pdf/pubs/pest/corp-plan/strat-plan-eng.pdf

Pesticides: Making the Right Choice for the Protection of Health and the Environment

<http://cmte.parl.gc.ca/cmte/CommitteePublication.aspx?COM=173&Lang=1&SourceId=36396>

<http://www.parl.gc.ca/HousePublications/Publication.aspx?DocId=1031697&Language=E&Mode=1&Parl=36&Ses=2>

Government Response to the Report of the House of Commons Standing Committee on the Environment and Sustainable Development

<http://www.pmra-arla.gc.ca/english/pdf/hlawns/hl-GovtResp-e.pdf>

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SESSION 11
POLICYMAKING UNDER PRESSURE

1. Pal, A. L. 2010. (4th Ed) *Beyond Policy Analysis*. Nelson, Toronto.
Chapter 8
2. Pal, A. L. 2010. (4th Ed) *Beyond Policy Analysis*. Nelson, Toronto.
Chapter 9