

Course Outline

GEOG/ENVIR SC 4HH3

Environment and Health

School of Geography and Earth Sciences
McMaster University
Fall 2017

Class times: Tuesdays 4:30 - 5:20; Thursdays 3:30 to 4:20
Tutorials: Once per week (one hour). See schedule below.
Class location: BSB - 119
Instructor: Niko Yiannakoulis
Office: GSB 204
Phone: X20117
Email: yiannan@mcmaster.ca
Office hours: Thursday 9-10 am. Please email for appointment.
Teaching assistants: Cathy Slavik, Connor Darlington

1. Course objectives

In this class students will:

- Enhance their understanding about the history, impact and science of environment and human health
- Learn about the methods used in environmental health research and practice
- Learn about communication in environment and health by writing reports and making an excellent presentation

2. Course readings

There are three required readings for this course. They are listed on page 5. They can all be downloaded from the internet provided you are on a campus computer or logged into the university network. The readings cover material that is not discussed in detail in class, but are important for achieving the course objectives. Material from the readings will included in the final exam.

3. Tutorials

There are two lectures each week. Most weeks there are also one-hour mandatory tutorials (see schedule below). You are required to attend tutorials.

4. Course assessment

- Assignment 1 (General health risk assessment report) (25%)
- Assignment 2 (Site specific health risk assessment report) (25%)
- Tutorial presentation and attendance (25%)
- Final exam (25%)

4.1 General health risk assessment report (25%)

This is a **1000-1500** word report on the relationship between exposure to an environmental hazard and a specific health concern. In this report you must do research to describe 1) the origin, source and properties of a hazard 2) the route of exposure, 3) the concentration of exposure thought to be harmful to humans, 4) a specific health

outcome thought to be related to exposure to hazard and 5) the association (in terms of relative risk) between exposure to hazard and the specific health outcome. Research must be based on peer reviewed journal articles and official government reports (from Health Canada, the CDC and other major agencies).

4.2 Site specific health risk assessment report (25%)

This is a site-specific assessment of the risks of a specific hazard (the same one identified and described in assignment one) in a specific community. The community must be a neighbourhood in a Canadian city. This assignment must include 1) a relevant description of the neighbourhood, 2) an assessment of exposure to hazard in the neighbourhood and 3) a conclusion about the health risks attributable to exposure to hazard in the neighbourhood.

The final report should be between **1000-1500** words in total length. The final report should also include a map of the neighbourhood and a final risk assessment table. Students are encouraged to also include useful graphical elements (**up to** three graphs and/or tables) in their report, ideally all of which are created by the student. Research must be based on peer reviewed journal articles and official government reports (from Health Canada, the CDC and other major agencies).

4.3 Tutorial presentation and attendance (25%)

Each student will deliver a short (10 minute), engaging and thoughtful presentation once in the term. Presentation topics will be selected at the beginning of the term. There will be multiple presentations in each tutorial, usually within a similar thematic area. You will be graded on presentation style and substance. You should rehearse your presentation ahead of time. Each presenter is also expected to initiate discussion on the topic (~5 minutes) with the audience by asking thought provoking questions.

In addition to preparing a presentation, each student must create **two** powerpoint slides, as well as a **one** page (250 word) summary of their presentation to hand into your TA for grading. Both of these **must be emailed to your TA at least 24 hours prior** to the tutorial. ***If handed in late, the student will receive a mark penalty, and will not be allowed to use the slides for their presentation.***

The tutorial presentation mark is 20%. The remaining 5% of the tutorial grade will be based on attendance and participation in the tutorial.

4.4 Final exam (25%)

There is a final exam in this course. Details will be discussed in class prior to the end of term.

5. Avenue 2 Learn

In this course we will be using Avenue 2 Learn. Students should be aware that when they access the electronic components of this course, private information such as first and last names, user names associated with McMaster email accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. ***Continuation in this course will be deemed consent to this disclosure.*** If you have any questions or concerns about such disclosure, please discuss this with the course instructor.

Questions related to course content (for example, about lectures and reading material) should be posted online. All students registered in this course should have access to the online system. Speak to the instructor if you have difficulties with access.

6. Classroom civics

1. Attendance in this course is considered mandatory. If you miss a lecture, it is your responsibility to get notes / details about missed material from your classmates.
2. Electronic submissions of assignments, papers, etc. are not accepted unless otherwise stated.
3. The instructor puts notes on Avenue to Learn at his discretion, and has the right to stop posting notes at any time throughout the term.
4. Students are **not permitted** to use an audio and/or video recording device to record lectures. Students who do so will be reported to the academic integrity office

7. Policy on late/missed assignments

- *All late assignments receive a 15%/day late penalty.*
- *For late assignments up to 3 days late that are worth less than 25% of mark:*
(definition of days late includes weekend days)
 - Use the McMaster student absence form (MSAF) on-line, self-reporting tool. Undergraduate students may report absences lasting up to 3 days and may also request relief for missed academic work provided the work is worth less than 25% of grade. The submission of medical or other types of supporting documentation is normally not required. Students may use this tool to submit a maximum of one request for relief of missed academic work per term. Students ***must immediately (within 5 days) follow up with me via email*** regarding the nature of the relief. Failure to do so will negate the opportunity for relief. Using the MSAF system does not guarantee relief for missed or late work.
- *For absences from classes lasting more than three days or assignments/exams worth 25% or more of final mark:*
 - Students who hand in an assignment more than 3 days late, or for an assignment/exam worth 25% or more of their final grade late cannot use the on-line, self-reporting tool to request relief. On these occasions, students **MUST** report to their Faculty Office to discuss their situation and will be required to provide ***appropriate*** supporting documentation.

8. Policy regarding academic dishonesty

Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g., the grade of zero on an assignment, loss of credit with a notation on the transcript (where notation reads “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the University.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty, please refer to the Academic Integrity Policy, specifically Appendix 3, located at: <http://www.mcmaster.ca/univsec/policy/AcademicIntegrity.pdf>

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g., the submission of work that is not one's own or for which other credit has been obtained
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

Instructors in this course will be using software designed to identify instances of plagiarism.

In addition, any content that is not written by a student (whether plagiarized or attributed in quotes) will be ignored in the content of any assignment. So in addition to the above measures, all content not written by the student will not be marked/graded.

9. Appealing Marks

If you wish to appeal an assignment mark, the appeal must be issued to the instructor within **seven** days (inclusive) of the assignment hand-back.

Re-marking of assignments due to addition errors will be considered without an official re-grade of the assignment. For such re-marking, simply hand in the assignment to the drop box with a note indicating the addition error.

If students want material in their assignment **re-graded**, they must submit their appeal in written form along with the original marked version of the assignment/exam into the course drop box. It is at the discretion of the instructor to have any assignment re-graded. If the assignment is re-graded, it will be re-graded in its entirety. Marks may go up or down after re-grading. To be eligible for a re-grade, students must also ensure that they have not discussed any details of their specific assignment with the TAs or instructor between when the assignment was handed back, and the time when it is handed in for a re-grade. This is to ensure the integrity of the re-grading process. If a student wants feedback on grading, they are welcome to seek it, but doing so will automatically exclude them from having their assignment re-graded.

10. Changes to the course outline

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

11. Lecture schedule

Date	Lecture	Readings
September 5	Introduction	
September 7	Background and the HEO model	
September 12	Background and the HEO model	
September 14	Background and the HEO model	
September 19	Health, disease and illness	
September 21	Health, disease and illness	
September 26	Study design	
September 28	Study design	
October 3	Study design (Assignment #1 due)	Morgenstern 1995
October 5	Study design	
October 17	Study design	
October 19	Quantifying risk	Susser 1991
October 24	Quantifying risk	
October 26	Quantifying risk	
October 31	Quantifying risk	
November 2	Quantifying risk	
November 7	Pathology and toxicology	
November 9	Pathology and toxicology	
November 14	Pathology and toxicology	
November 16	Exposure	Nuckols, Ward and Jarup 2004
November 21	Exposure (Assignment #2 due)	
November 23	Exposure	
November 21	Risk analysis	
November 23	Risk analysis	
December 5	Risk analysis	

Morgenstern, H. (1995). Ecologic studies in epidemiology: concepts, principles, and methods. *Annual review of public health, 16*(1), 61-81.

Susser, M. (1991). What is a cause and how do we know one? A grammar for pragmatic epidemiology. *American Journal of Epidemiology, 133*(7), 635-648.

Nuckols, J. R., Ward, M. H., & Jarup, L. (2004). Using geographic information systems for exposure assessment in environmental epidemiology studies. *Environmental health perspectives, 112*(9), 1007.

12. Tutorial schedule

Tuesday 8:30 - 9:20 in UH 103

Monday 2:30 - 3:20 UH 102

Tuesday 11:30-12:20 UH 102

Monday 9:30 - 10:20 UH 103

Date	Lecture
Week 1 (September 4 - 8)	No tutorial
Week 2 (September 11 - 15)	Finalize presentation topics and discuss presentations
Week 3 (September 18 - 22)	Discussion of assignment #1
Week 4 (September 25 - 29)	Presentation week 1
Week 5 (October 2 - 6)	Presentation week 2
Week 6 (October 16 - 20)	Presentation week 3
Week 7 (October 23 - 27)	Presentation week 4
Week 8 (October 30 - November 3)	Discussion of assignment #2
Week 9 (November 6 - 10)	Presentation week 5
Week 10 (November 13 - 17)	Presentation week 6
Week 11 (November 20 - 24)	Presentation week 7
Week 12 (November 27 - December 1)	Presentation week 8