

We recognize and acknowledge that McMaster University meets and learns on the traditional territories of the Mississauga and Haudenosaunee nations, and within the lands protected by the "[Dish With One Spoon](#)" wampum, an agreement amongst all allied Nations to peaceably share and care for the resources around the Great Lakes.

ENVSOCY 4HH3 – Environment and Health

2022 Fall Term

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Office hours: Virtual, By Appointment

Class Times: Tuesdays and Thursdays 5:30-6:20PM; BSB 106

Course Description

Environment plays a key role in not only individual health, but also population health and the sustainability of communities. Understanding the role of environment as a determinant of that health is paramount and has a distinct multi-disciplinary lens. This course will explore the scientific and social dimensions of environment and human health. It will investigate methods used in environmental health research and will discuss and demonstrate communication of environmental health information.

Prerequisite(s): One of EARTHSC 2E13, ENVIRSC 2E13, ENVSOCY 2E13, 2HI3, GEOG 2E13, 2HI3; and registration in Level IV or above

Antirequisite(s): ENVIRSC 4HH3, GEOG 4HH3

Course and Learning Objectives

In this class, students will:

1. Enhance their understanding of scientific and social dimensions of environment & human health
 2. Compare and contrast methods used in environmental health research and practice
 3. Describe the interpretation and communication of environmental health information
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Class Activities:

- There will be two regularly scheduled lectures every week (Tuesdays and Thursdays, from 5:30 pm to 6:20 pm), each of which will run about 40 to 50 minutes. The instructor will be the primary lecturer sometimes assisted by the TAs as moderators. **Lecture attendance is mandatory.** If you miss a lecture, it is your responsibility to get notes/ details about missed material from your classmates.
- Each lecture will be uploaded to Avenue to Learn prior to the lecture.

Materials & Fees

Required Materials/ Resources

- Textbook is not required. This course uses primary literature and lecture material.
- No fees are associated with this course.

Course Overview and Assessment

The topics outlined in the *Course Schedule* below will be covered in this course. The list of course readings that will be uploaded to A2L provides essential background material for the course. Students are responsible for all readings the week of the lecture. **It is important to note that information from the readings may appear in the midterm and/or final exam.** The reading material provides important context for the class lectures and assignments, and the instructor will assume that students are familiar with the content. Links to material will be provided on Avenue to Learn at least one week prior to the lecture.

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, usernames 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.

Course Schedule

Lecture	Date	Topic	Assignments
1	September 6	Classes begin: Overview	
2	September 8	History of Health and Environment	
3	September 13	Structure and Agency	
4	September 15	Defining Environment and Health	
5	September 20	Hazard, Exposure and Outcome I	
6	September 22	Hazard, Exposure and Outcome II	
7	September 27	Occupational Injury and Cancer Clusters- TA guest speaker, Sophia Geffros	
8	September 29	Epidemiology, Biostatistics and Study Design	
9	October 4	Study Designs	
10	October 6	Study Designs & Toxicology	Assignment #1 Due
11	October 11	Reading Week	
12	October 13	Reading Week	
13	October 18	Toxicology II	
14	October 20	Pathology and Pathogenesis	
15	October 25	Pathogenesis II	
16	October 27	Midterm (date may change)	Midterm
17	November 1	Exposure	
18	November 3	An Emergency Pediatrician's Perspective- guest speaker Dr. Chris Sulowski , Chief of Pediatric ED at MCH	
19	November 8	Your Neighbour's Kid Did What? How Children's Health can be Affected by the Environment- guest speaker Dr. Chris Sulowski , Chief of Pediatric ED at MCH	
20	November 10	Environmental Health Risk Analysis I	
21	November 15	Environmental Health Risk Analysis II	

22	November 17	Environmental Injustice- TA guest speaker, Sumia Ali	Assignment #2 Due
23	November 22	Group presentations	
24	November 24	Group presentations	
25	November 29	Group presentations	
26	December 1	Government Responsibility	
27	December 6	TBD	
28	December 8	Last Class:	

Evaluation

Grade Component	Due Date	Weight
Assignment #1- Media Critique	October 6, 2022	10%
Assignment #2- Assessment Report	November 17, 2022	15%
Midterm	TBD	25%
Presentation & Environmental Health Assessment	November 22 - 29, 2022	20%
Final Exam	TBD	30%

Assignment 1: Media Critique (10%) (1000 words maximum)

In this assignment, you will critique a media article from a major North American media outlet (e.g. New York Times, Forbes, CNN, etc.) that deals with a current environmental health issue **in Canada**. The article should cover an issue of current relevance/ importance, and should have been in original publication within the last 3 months. In most cases, it will be necessary to seek secondary sources to assist you in your critique. The assignment should include a brief summary of the article (250 words) and commentary on the information included in the article (750 words). You will be graded based on your analysis of the article's content, your critical thinking ability, and how well you've incorporated course content into your critique. Be sure to reference your specific article in your paper.

Your critique must include at least **5 references, 2 of which must be articles published in academic journals**. The other three references can be from any academic sources including books, textbooks, information from reputable online sources, and of course, academic journals. **All references used must have been published within the last five years**. This critique must include the following:

- **Introduction** of the topic, stating its purpose, target audience (5 marks)
- **What?** Provide your opinion on the article. What was done well and what are areas of improvement (10 marks)
- **So What?** What does this mean for the general public? (10 marks)
- **Now What?** Does this article raise false alarm or highlight the issue appropriately? Do you agree or disagree with the media article's intent? Is there a call to action, if so, what? (15 marks)
- **Conclusion**

Assignment 2: Site Specific Health Risk Assessment Report (15%)

This 2000 word report (excluding references) is a site-specific assessment of the risks of a specific hazard in a specific community. This will include assessing the risk of a potential hazard to human health. The purpose of the assignment is to reinforce research skills, as well as help students write a concise and well-organized report.

Your task in this assignment is to assess the risks to a community in a way that is rigorous, accurate and informative. The community must be a specific neighbourhood in a Canadian city. This assignment must include:

1. A relevant description of the neighbourhood
2. An estimate of the relative risk of the health outcome associated with exposure to specific hazard based on peer-reviewed literature
3. An assessment of exposure to specific hazard in the neighbourhood
4. A conclusion about the health risks attributable to exposure to specific hazard in the neighbourhood.

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 (not included in word count).

Research must be based on peer reviewed journal articles and official government reports (from Health Canada, the CDC and other major agencies). Blackout period: students should ask assignment-related questions of TAs or the instructor prior to the week of November 14th – 17th. **We will not answer any assignment related questions within two days of the November 17th due date.**

Midterm (25%)

There is a midterm in this course. Details will be discussed in class prior to the exam.

Presentation (10%); Environmental Health Assessment (10%)

Students will choose their own groups; consisting of 3-5 group members (dependent on class size), and will be tasked to make an informative and dynamic pre-recorded video presentation (2-3 minutes in length maximum) that summarizes a current environmental health issue **outside of Canada**. Students will need to prepare a short video and an environmental health assessment in the style of a public awareness campaign. Videos can include live recordings, animations, or a combination of the two. The topic should be pertinent to human risks in a region or global environment and have a broad appeal to the group and class. Ideally, students should be using the collective multidisciplinary skills and

experiences of their team to generate a compelling campaign. The video should generate an in-class discussion for another 5-10 minutes.

Students must have their topics pre-approved by the instructor. Duplicate topics will not be permitted. This will be based on a first come first serve basis. Topics should be sent to the instructor the week of September 20th. Presentations will be shown in class November 22nd, 24th, and 29th, and the Environmental Health Assessment will be due prior to the presentation based on the presentation schedule. The environmental health assessment should be designed as a document produced by a government agency to educate the general public about a particular health risk. This can take the form of short guide or a website on the topic, and should use any existing data set or re-interpreted data sets using skills acquired throughout team's undergraduate development. There is no word limit for the health assessment but rather this portion will be assessed based on its ability to effectively convey information to the public. **Note: more information is not always better*.*

Attendance during the presentations will be mandatory, and **information may be found in the final exam.**

Final exam (30%)

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

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) online, 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 the grade.

Requests for Relief for Missed Academic Term Work

[McMaster Student Absence Form \(MSAF\)](#): In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar “Requests

for Relief for Missed Academic Term Work”. Undergraduate students may report medical-related absences lasting up to 3 days using MSAF. 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.

Academic Accommodation of Students with Disabilities

Students with disabilities who require academic accommodation must contact [Student Accessibility Services \(SAS\)](#) at 905-525-9140 ext. 28652 or sas@mcmaster.ca to make arrangements with a Program Coordinator. For further information, consult McMaster University’s [Academic Accommodation of Students with Disabilities](#) policy.

Academic Accommodation for Religious, Indigenous Or Spiritual Observances (Riso)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the [RISO](#) policy. Students should submit their request to their Faculty Office **normally within 10 working days** of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

Online Proctoring

Some courses may use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

Academic Integrity

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

It is your responsibility to understand what constitutes academic dishonesty.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university. For information on the various types of academic dishonesty please refer to the [Academic Integrity Policy](https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/), located at <https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/>

The following illustrates only three forms of academic dishonesty:

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

Authenticity / Plagiarism Detection

Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. A2L, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

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

Conduct Expectations

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all our living, learning and working communities. These expectations are described in the [Code of Student Rights & Responsibilities \(the “Code”\)](#). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online.**

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery),

will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students' access to these platforms.

Copyright and Recording

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, **including lectures** by University instructors.

The recording of lectures, tutorials, or other methods of instruction may occur during a course.

Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

Research Ethics -NA

Not applicable

Extreme Circumstances

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.

Appealing Grades

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

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

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.

Changes to the Course Outline

The instructor and university reserve the right to modify elements of this 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.