**MCMASTER UNIVERSITY**
**FACULTY OF HEALTH SCIENCES**

# HLTH AGE 3S03: GLOBAL HEALTH ENVIRONMENT POLICY

**INSTRUCTOR:** Vito A. Buonsante (vabuonsante@gmail.com; buonsanv@mcmaster.ca)
**TERM:** September to December 2017
**SEMINAR:** Wednesday 2:30 p.m. – 5.20 p.m., McMaster BSB 138
**OFFICE HOURS**: Wednesdays 12:30 p.m. - 1:30 p.m., KTH 233

## COURSE SUMMARY

"[Environmental health] [c]omprises those aspects of human health, including quality of life, that are determined by physical, chemical, biological, social and psychosocial factors in the environment. It also refers to the theory and practice of assessing, correcting, controlling, and preventing those factors in the environment that can potentially affect adversely the health of present and future generations" (World Health Organization [WHO], 2004). Around 12.6 million deaths a year are due to preventable environmental health risks (WHO, 2016), which represents 23% of the global burden of disease. This course explores the challenges in tackling the health impacts from environmental pollution (chemicals, waste, climate change). The course will address the issues on how scientific knowledge about adverse health effects from exposure to environmental factors are converted into policies. The course covers and assesses the concept of risk, scientific uncertainty, cost-benefit analysis, access to information, and the precautionary principle. The course will discuss the instruments (international conventions, programs, initiatives) that have been implemented to address these pressures at the global level and discuss their limitations. The environmental health topics that will be discussed include endocrine-disrupting chemicals, mercury pollution, hazardous wastes and their disposal, hazardous pesticides, nanomaterials.

## LEARNING OBJECTIVES

1. To help the student to understand the complexities of the connections between environmental hazards and human health
2. Gain real-world experience and develop novel approaches on what instruments may be used to address environmental health threats
3. Describe a regulatory process from the identification of a possible health impact to the adoption of a risk management measure

### Specific Learning Objectives

By the end of this course, students should be able to:

1. Understand and identify the most pressing environmental health pressures;
2. Understand how science is used in the setting of environmental health policies with a focus on the international level;
3. Understand the role of scientific uncertainty in the design of environmental health policies and how the precautionary principle may be used;
4. Understand the role of stakeholders in the decision-making process in the design and/or

implementation of environmental health policies.

**SEMINAR FORMAT**

Students will explore some of the core issues in environmental health through lectures by the instructor and a series of interactive discussions. Students will consider the various environmental pressures that globally affect health, the type of players involved and the current political environment in which environmental health decisions are taken. Seminar session may feature discussions on a particular tool in the decision-making process related to environmental pressures to health and/or problem-based learning exercises with role-playing applied to specific case-studies on current or past issues. When possible, the seminar format will be modified to allow a guest lecture to discuss experience in environmental health decision-making.

Policy Discussions: Throughout the course, students will consider and discuss a variety of environmental health methods and paradigms, discussing their possible uses and analyze how they are used in the decision-making process related to specific environmental health pressures. The focus will be on identifying what are the trade-offs that lead to action (or inaction) in relation to specific environmental health pressures. The specific methods discussed will then inform and be applied in all the discussions and analyses that will range from formal legal instruments to amorphous innovations. The weekly readings will primarily focus on and inform this part of the seminar.

Materials
Many readings will be selected from the book *Environmental Health: From Global to Local* by Howard Frumkin. Other materials will include academic articles, newspaper articles, policy papers, and documents from international organizations, government agency or other relevant stakeholders and will be made available electronically. Lecture slides will be provided the day before each class at the latest.

SEMINAR TOPICS (tentative)

Week 1 (Wednesday September 6th) | Introduction to Global Health and Environment Policy

Week 2 (Wednesday September 13th) | Environmental causes of diseases and policy response

Week 3 (Wednesday September 20th) | Risk and hazard, the varying meaning of risk

Week 4 (Wednesday September 27th) | Uncertainty and the precautionary principle **[Assignment due]**

Week 5 (Wednesday October 4th) | Risk Assessment and Cost-Benefit analysis

(Wednesday October 11th) | MID-TERM RECESS; NO SEMINARS

Week 6 (Wednesday October 18th) | Access to information and access to justice

Week 7 (Wednesday October 25th) | Trade and Environmental Health

Week 8 (Wednesday November 1st) | Industrial chemicals and toxics ignorance

Week 9 (Wednesday November 8th) | Pesticides and food security

Week 10 (Wednesday November 15th) | Case study group presentations

Week 11 (Wednesday November 22nd) | Hazardous waste

Week 11 (Wednesday November 22nd) | Fracking, climate change and health

Week 12 (Wednesday December 3rd) | Emerging risks

## ASSIGNMENTS & EVALUATION

1. Written assignment: 15%
2. Policy memo proposal: 10%
3. In class participation and attendance: 20%
4. Readings: 5%
5. Group presentation: 20%
6. Policy Memo: 30%

1. Assignment #1: Students will identify a global environmental health issue relevant to their community and describe how it impacts various stakeholders.
2. Students will select a current environmental health issue of their choice and explain why it is relevant at a global level, who the relevant stakeholders are, and what position they will be defending in their policy memo (a private interest, a public interest, a local interest, etc.).
3. General participation and asking good questions. This course aims at being as interactive as possible and to maximize interaction, engagement and peer-to-peer learning.
4. Students are expected to read the required readings. Quizzes may be required to verify that the fundamental concepts of the course have been acquired.
5. A group presentation will be organized to simulate a discussion between public officials, public interest advocates, and private interest advocates. The discussion will aim at verifying that students understand and master the tools of environmental health decision-making.
6. Policy memos will be 2500-3000 words in length (including abstract and key messages, but excluding references and appendices), with a preference for concise writing that achieves a word count in the lower part of the range. Students will also prepare 2-3 key messages for decision-makers (one sentence maximum for each). The research memo must be informed by extensive research that is cited appropriately.

## APPENDIX: ADDITIONAL COURSE INFORMATION

## ACADEMIC INTEGRITY

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

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.

It is each student's responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at http://www.mcmaster.ca/academicintegrity.

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.

## COURSE MODIFICATIONS

The instructor(s), program and the 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 modifications become necessary, reasonable notice and communication with the students will be given. Students will be provided with an explanation and an opportunity to comment. It is the responsibility of the student to check their McMaster email and the course website daily during the term.

## A NOTE ON WRITING

Good writing is an essential skill for advocacy and an important part of this course. In assignments, students should always thoughtfully consider their target audience and the way this should change their writing style. For decision-makers who are always pressed for time, shorter is better. Simple, jargon-free language and point-first writing is preferred over fancy words and long suspenseful prose. Writers should examine every sentence to ensure it actually adds value to their work; if not, it should be cut. Setting the right tone at the beginning is important, as is concluding with actionable messages. The summary is the most important section because it is usually the only part of a paper that is actually read.

## PROFESSIONALISM

Students are expected to display professional integrity and behaviour towards the professionals and organizations with whom they interact through this course. If any questions or clarification about professional behavior are needed, please discuss this with the course instructor(s).

## ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140 ext 28652 or email sas@mcmaster.ca. For further information consult McMaster University's Policy for Academic Accommodation of Students with Disabilities.