

Environmental Health in a Global World

Class code UGPH-GU 9050

Instructor Details Dr Jane Elkington
jane.elkington@nyu.edu
phone: 0425 200194
Office Hours: Consultation by appointment
Please allow at least 24 hours for your instructor to respond to your emails.

Class Details **Spring 2015**

Environmental Health in a Global World

Monday 12:00 – 3:00pm

February 2 to May 11

Room 301

NYU Sydney Academic Centre

Science House: 157-161 Gloucester Street, The Rocks 2000

Prerequisites None

Class Description This course will examine some of the key issues, achievements, shortfalls and principles of environmental health practice. It will focus on the how environmental health issues are defined, how they interact with other factors to impact health and how they are approached by civic groups, governmental officials and researchers. It will highlight how environmental threats come to the attention of the public and weigh the options for addressing these threats. Finally, it will underscore the need for multi-disciplinary approaches in understanding these threats and crafting solutions.

Desired Outcomes **Course Objectives:**

- Define and describe the field of environmental health.
- Assist students to understand how the field of environmental health has emerged.
- Introduce students to the different roles and responsibilities of government agencies in monitoring and addressing environmental health.
- Consider aspects of environmental health issues both domestically and internationally.

- Acquaint students with the origins of the field, and with some of the current issues facing it today.
- Understand the relationship between social movements and efforts to address environmental health threats.

Learning Objectives:

- To acquaint learners with the various dimensions of the field of environmental health.
- To examine the roles of different agencies in addressing such threats, and the roles of social movements in defining such threats.
- To understand some of the larger social forces that affect environmental health.
- To encourage careful and reflective analysis in proposing solutions to environmental health threats.

**Assessment
Components**

Homework Assignments : 15% Sessions 2, 6, 13

Midterm 1: 20% Session 5

Midterm 2: 20% Session 11

Final Exam: 35% Monday 18 May 3.00-5.00 pm

Class Participation: 10%

Homework Assignments: Students will complete assignments posted on NYU Classes throughout the semester, generated from the readings.

Midterm Exams: Two in-class midterms will consist of a list of fill-in definition of key terms, and short essays designed to apply concepts to real world problems of environmental health and environmental risk.

Final Exam: The final will emphasise essays to synthesise concepts learned in the course.

Class Participation: Students are required to demonstrate accountability and responsibility in their preparation for, and engagement with, the course. Students are expected to engage in active discussion and to listen to and respect other points of view.

Failure to submit or fulfill any required course component will result in failure of the class.

**Assessment
Expectations**

Grade A: Excellent performance showing a thorough knowledge and understanding of the topics of the course; all work includes clear, logical explanations, insight, and original thought and reasoning.

Grade B: Good performance with general knowledge and understanding of the topics; all work includes general analysis and coherent explanations showing some independent reasoning, reading and research.

Grade C: Satisfactory performance with some broad explanation and reasoning; the work will typically demonstrate an understanding of the course on a basic level.

Grade D: Passable performance showing a general and superficial understanding of the course's topics; work lacks satisfactory insight, analysis or reasoned explanations.

Grade F: Unsatisfactory performance in all assessed criteria. Work is unfinished or unsubmitted.

Grade Conversions

A grading rubric will be provided and distributed in class.

Late Submission of Work

Written work due in class must be submitted to your instructor during class time.

Late work should be submitted in person to the Academic Coordinator during regular office hours (9:00am-5:00pm, Monday-Friday). In the absence of the Academic Coordinator, another member of the administrative staff can accept the work in person. The NYUS staff will mark down the date and time of submission in the presence of the student. Students must also submit an electronic copy of late written work to Turn-It-In within 24 hours.

Work submitted after the submission time without an agreed extension receives a penalty of 2 points on the 100-point scale (for the assignment) for each day the work is late.

Written work submitted beyond five (5) weekdays after the submission date without an agreed extension fails and is given a zero.

Plagiarism Policy

The academic standards of New York University apply to all coursework at NYU Sydney. NYU Sydney policies are in accordance with New York University's plagiarism policy. The presentation of another person's words, ideas, judgment, images or data as though they were your own, whether intentionally or unintentionally, constitutes an act of plagiarism.

Penalties for confirmed cases of plagiarism are severe and are dealt with by the Director, NYU Sydney, not your instructor. Your home school will be notified and you will be dealt with according to the standards of that school. The codes of conduct and academic standards for NYU's various schools and colleges are outlined in the respective school's academic resources.

Attendance Policy

Study abroad at Global Academic Centres is an academically intensive and immersive experience, in which students from a wide range of backgrounds exchange ideas in discussion-based seminars. Learning in such an environment depends on the active participation of all students. And since classes typically meet once or twice a week, even a single absence can cause a student to miss a significant portion of a course. **To ensure the**

integrity of this academic experience, class attendance at the centres is mandatory, and unexcused absences will be penalised with a two percent deduction from the student's final course grade for every week of classes missed.

The class roster will be marked in the first five minutes of class and anyone who arrives after this time will be considered absent. Students are responsible for making up any work missed due to absence. Repeated absences will result in harsher penalties, including failure.

Classroom Expectations

This is a seminar subject and requires the active participation of all students. It also requires engaged discussion, including listening to and respecting other points of view. Your behaviour in class should respect your classmates' desire to learn. It is important for you to focus your full attention on the class, for the entire class period.

- Arrive to class on time.
- Once you are in class, you are expected to stay until class ends. Leaving to make or take phone calls, to meet with classmates, or to go to an interview, is not acceptable behaviour.
- Phones, digital music players, and any other communications or sound devices are not to be used during class. That means no phone calls, no texting, no social media, no email, and no internet browsing at any time during class.
- Laptop computers and tablets are not to be used during class except in rare instances for specific class-related activity expressly approved by your instructor.
- The only material you should be reading in class is material assigned for that class. Reading anything else, such as newspapers or magazines, or doing work from another class, is not acceptable.
- Class may not be recorded in any fashion – audio, video, or otherwise – without permission in writing from the instructor.

Required Texts

- Howard Frumkin, ed.: [Environmental Health: From Global to Local](#), Jossey Bass, 2010.

Supplemental Texts

World Health Organization – Commission on the Social Determinants of Health (2008) Final Report: Closing the gap in a generation: Health equity through action on the social determinants of health.

http://www.who.int/entity/social_determinants/final_report/csdh_finalreport_2008.pdf

World Health Organization (2006): Preventing disease through healthy environments: Towards an estimate of the environmental burden of disease.

http://www.who.int/quantifying_ehimpacts/publications/preventingdisease.pdf?ua=1

Centres for Disease Control, NACCHO, Hennepin County Human Services and Public Health Department
(2007) Environmental Health - Emergency Response Guide. Hennepin County, MN.
http://www.cdc.gov/nceh/ehs/docs/eh_emergency_response_guide.pdf

Session 1:

Monday 2 February

Overview: What is Environmental Health?

Required Reading:

- World Health Organization (2006): *Preventing disease through healthy environments: Towards an estimate of the environmental burden of disease. Executive Summary (pp 8-17)*
http://www.who.int/quantifying_ehimpacts/publications/preventingdisease.pdf?ua=1

Principles of Toxicology and Epidemiology

Required Reading:

- Chapters 2 and 3, Frumkin

Session 2:

Monday 9 February

Exposure Science and Risk Assessment

Required Reading:

- Chapters 4 and 29, Frumkin

Economic Context

Required Reading:

- Murdock, H. (2012). Poverty, pollution lower life expectancy in Nigeria. *Voice of America – News/Africa*, July 05, 2012.
<http://www.voanews.com/content/poverty-pollution-killers-in-nigeria/1363853.html>
- Chapman AR (2009) Globalization, human rights, and the social determinants of health. *Bioethics*. Feb;23(2):97-111. doi: 10.1111/j.1467-8519.2008.00716.x.

Homework Assignment 1 due (5%)

Session 3:

Monday 16 February

Environmental Justice

Required Reading:

- Chapters 8, Frumkin

The Health of indigenous Australians (Guest lecturer: Dr Lana Leslie)

Required Reading:

- Marmot, M. (2011). Social determinants and the health of indigenous Australians (Editorial). *Medical Journal of Australia*;194(10)512-3
- Ferdinand, A., Paradies, Y. & Kelaher, M. (2013). *Mental Health Impacts of Racial Discrimination in Victorian Aboriginal Communities*. Retrieved February 9, 2014: from <https://www.mja.com.au/journal/2014/201/1/experiencing-racism-health-care-mental-health-impacts-victorian-aboriginal>

Session 4:

Monday 23 February

Occupational Health

Required Reading:

- Chapter 20, Frumkin

Injuries and the environment

Required Reading:

- Chapter 22, Frumkin
- Norton, R. and Kobusingye, O. (2013): Injuries. *New England Journal of Medicine*; 368:1723-1730.

Session 5:

Monday 2 March

Midterm Exam 1 (20%)

Water

Required Reading:

- Chapter 15, Frumkin
- Health InfoNet: Water supply (Information about water supply and Indigenous environmental health for Aboriginal and Torres Strait Islander environmental health practitioners) [Last accessed Dec 16, 2014] <http://www.healthinfonet.ecu.edu.au/health-infrastructure/iehp/water-supply>

Session 6:

Monday 9 March

Air

Required Reading:

- Chapter 12, Frumkin

Tobacco (Guest lecturer: Dr Ross MacKenzie)

Required Reading:

- Glynn, T., Seffrin, J., Brawley, O., Grey, N., Ross, H. (2010) The Globalization of Tobacco Use: 21

Challenges For The 21st Century. *CA: A Cancer Journal for Clinicians*; Volume 60, Issue 1, pages 50–61, January/February 2010

Homework Assignment 2 due (5%)

Semester Break 16-20 March

Session 7:

Monday 23 March

Pesticides

Required Reading:

- Chapter 17, Frumkin
- Food Standards Australia and New Zealand (June 2014): Herbicides in Genetically Modified Foods
<http://www.foodstandards.gov.au/consumer/gmfood/Pages/Herbicides-in-GM-foods.aspx>

Food

Required Reading:

- Chapter 18, Frumkin
- Food Safety Standards (Australia)
<http://www.foodstandards.gov.au/industry/safetystandards/Pages/default.aspx>

Session 8:

Monday 30 March

Children's Health and Lead

Required Reading:

- Trasande L, Liu Y. Reducing The Staggering Costs Of Environmental Disease In Children, Estimated At \$76.6 Billion In 2008 *Health Affairs*, 2011 May;30 (5):863-70. Epub 2011 May 4.
- Taylor, M. (2012): Lead poisoning of Port Pirie children: a long history of looking the other way. The Conversation. 19 July 2012, 6.42am AEST
<http://theconversation.com/lead-poisoning-of-port-pirie-children-a-long-history-of-looking-the-other-way-8296>

Children's safety at home

Required Reading:

- WHO/UNICEF (2008) World Report on Child Injury Prevention: **Chapter 1 – Child injuries in context (pages 1-22)**
http://whqlibdoc.who.int/publications/2008/9789241563574_eng.pdf?ua=1

Session 9:

Friday 10 April (NB Make-up class for Easter Monday Public Holiday)

Radiation

Required Reading:

- Chapter 21, Frumkin

Hazardous Waste

Case study: Asbestos – the Australian and global situation

Required Reading:

- Chapter 16, Frumkin
- Stayner, L., Welch, L., and Lemen, R. (2013). The worldwide pandemic of asbestos-related diseases. *Annu Rev Public Health*. 34:205-16. Epub 2013 Jan 4.

Session 10:

Monday 13 April

The Built Environment

Required Reading:

- Chapter 14, Frumkin
- Thompson, S., & Kent, J.L. (2014) Healthy Built Environments Supporting Everyday Occupations: Current Thinking in Urban Planning, *Journal of Occupational Science*, 21:1, 25-41.

Urban planning for health (Guest lecturer: Dr Jennifer Kent)

Required Reading:

- Kent, J. L. & Thompson, S. (2014) The Three Domains of Urban Planning for Health and Well-Being. *Journal of Planning Literature*. Vol 29 (3), 239-256.

Session 11:

Monday 20 April

Midterm Exam 2 (20%)

Climate Change

Required Reading:

- Chapter 10, Frumkin
- McMichael, A.J., (2014). Earth as humans' habitat: global climate change and the health of populations. *Int J Health Policy Manag*; 2(1):9-12

Session 12:

Monday 27 April

Disasters

Required Reading:

- Chapters 23, Frumkin

Disaster Preparedness

Required Reading:

- Keim, ME (2008). Building human resilience: the role of public health preparedness and response as an adaptation to climate change. *Am J Prev Med.* Nov;35(5):508-16. doi: 10.1016/j.amepre.2008.08.022.

Session 13:

Monday 4 May

Genes and the environment

Required Reading:

- Chapter 6, Frumkin

The environment and health behaviour – global and local issues

Required Reading:

- Popkin, B.M. (2006). Technology, transport, globalization and the nutrition transition food policy. *Food Policy*;31,554-561.

Homework Assignment 3 due (5%)

Session 14:

Monday 11 May

Working in Environmental Health

Required Reading (Browse the website):

- Indigenous Environmental Health Practitioners: [last accessed 17th Dec, 2014]
<http://www.healthinonet.ecu.edu.au/health-infrastructure/iehp>

Course Wrap-up and Review

Final Exam Monday 18 May 3.00-5.00 pm (35%)

Your Instructor:

Dr. Jane Elkington (Ph.D., University of Minnesota) has worked for many years in public health research, planning and policy development. Her research interests are in injury prevention including road safety and workplace health and safety. Jane is a board member of Youthsafe, an NGO devoted to the prevention of injuries to young people.