

UGPH-GU 9050.SY1

Environmental Health in a Global World

Fall 2019

Instructor Information

- Dr. Jane Elkington
- Consultation by appointment
- jane.elkington@nyu.edu (Please allow at least 24 hours for your instructor to respond to your emails)

Course Information

- Pre-requisite: None
- Mondays: 3:30 – 6:30pm
- Room 302, NYU Sydney Academic Centre. Science House: 157-161 Gloucester Street, The Rocks NSW 2000

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.

Course Materials

Required Textbooks & Materials

It is a course expectation that you have done the required reading and have prepared sufficiently to discuss them in class.

- Howard Frumkin, ed.: *Environmental Health: From Global to Local*, Third Edition. Jossey Bass, 2016.

A copy of this text is available online from NYU Libraries. Student need to ensure that they locate the third edition, published in 2016.

Additional required readings are identified under each lecture, outlined below.

Course Overview and Goals

Upon Completion of this Course, students will be able to:

- Define and describe the field of environmental health.
- 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.

Course Requirements

Homework Assignments

Students will complete assignments posted on NYU Classes throughout the semester, generated from the readings and further research.

Midterm Exams

Two in-class midterms will consist of multiple choice questions which cover understanding of key terms, and short answer questions 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, plus short answer to cover topics since the mid-term 2 exam.

Class Participation

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

Grading of Assignments

The grade for this course will be determined according to the following formula:

Assignments/Activities	% of Final Grade	Due
Homework 1	15%	8:00pm, Sun 22 Sep (Wk 3)
Midterm 1	15%	Mon 30 Sep (Wk 5)
Midterm 2	15%	Mon 11 Nov (Wk 10)
Homework 2	15%	8:00pm, Sun 1 Dec (Wk 14)
Final Exam	30%	2:00 – 4:00pm, Mon 16 Dec
Class Participation	10%	Ongoing

For this course, your total numerical score, calculated from the components listed above, is converted to a letter grade without rounding.

Extra credit: Site policy does not allow grading of work outside of the assignments included in the syllabus. The final grade will only be calculated from the assessment components listed here and no other work, whether additional or substituted, is permitted.

Failure to submit or fulfill any required course component results in failure of the class

Letter Grades

Letter grades for the entire course will be assigned as follows:

Letter Grade	Explanation of 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.
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.
C	Satisfactory performance with some broad explanation and reasoning; the work will typically demonstrate an understanding of the course on a basic level.
D	Passable performance showing a general and superficial understanding of the course's topics; work lacks satisfactory insight, analysis or reasoned explanations.
F	Unsatisfactory performance in all assessed criteria. Work is unfinished or unsubmitted.

Grade Conversions

For this course your total numerical score, calculated from the components listed above, correspond to the following letter grades:

A	90 to 100
A-	86 to < 90
B+	82 to < 86
B	72 to < 82
B-	68 to < 72
C+	64 to < 68
C	54 to < 64
C-	50 to < 54
D+	45 to < 50
D	40 to < 45
F	0 to < 40

Course Schedule

Week 1: 2-Sep-19

Overview: What is Environmental Health?

Required Reading:

- Chapter 1; 'Introduction to Environmental Health', in Frumkin, 2016.
- Prüss-Üstun, A, Wolf, J, Corvalán, C, Bos, R, and Neira, M. Preventing disease through healthy environments. A global assessment of the burden of disease from environmental risks. World Health Organization, Geneva; 2016
Read: [Executive Summary \(pX to XXIII\)](#) [Last accessed 21 May, 2019]

Economic Context of Health

Required Reading:

- [Australian Institute of Health and Welfare 2018](#). Australia's health 2018: in brief. Cat. no. AUS 222. Canberra: AIHW, read Chapter 3, pages 348 [Last accessed 21 May, 2019]

Week 2: 9-Sep-19

Environmental Justice

Required Reading:

- Chapter 11: 'Environmental Justice and Vulnerable Populations', in Frumkin, 2016.

Assessing and Citing Evidence

Required reading:

- Morgan RL, Thayer KA, Bero K, Bruce N, Falck-Ytter Y, Ghersi D et al (2016) GRADE: [Assessing the quality of evidence in environmental and occupational health](#). Environment International, January 2016. [Last accessed 21 May, 2019]

Week 3: 16-Sep-19

In class presentations - Homework Assignment 1 (15%)

Topic: Oil mining in Nigeria – Stakeholders' perspectives on the economic, health and environmental justice issues for the people living in the Niger Delta

Required reading:

- Adekola J, Fischbacher-Smith M and Fischbacher-Smith D (2017) [Health risks from environmental degradation in the Niger Delta, Nigeria](#). Politics and Space. Vol. 35(2) 334–354

Principles of Toxicology

Required Reading:

- Chapter 6: 'Toxicology', in Frumkin, 2016

Week 4: 23-Sep-19

Children's Health and Lead

Required Reading:

- Taylor M, Winder C, Lanphear B (2014): Australia's leading public health body delays action on the revision of the public health goal for blood lead exposures. *Environment International*, 70, 113–117. (Locate this article through NYU online library)
- Corderoy A. [Call for child lead exposure levels to be halved amid concerns about behaviour, IQ](#), Sydney Morning Herald, May 2015. [Last accessed 21 May 2019].

Children's safety at home

Required Reading:

- Alonge, O and Hyder, AA (2014) Reducing the global burden of childhood unintentional injuries. *Archives of Diseases of Childhood*, 99 (1) 62-69. (Locate this article through NYU online library)

Week 5: 30-Sep-19

Mid-Term Exam 1 (15%)

Food

Required Reading:

- Chapter 19, 'Food systems, the environment, and public health', in Frumkin, 2016.

Week 5: 4-Oct-19* (*FRIDAY)

(NO CLASS ON MON 7 OCT – LABOUR DAY HOLIDAY. MAKE UP DAY IS FRI 4 OCT)

Injuries and the environment

Required Reading:

- Chapter 23: 'Injuries', in Frumkin, 2016.

Exposure Assessment & Risk Assessment

Required Reading:

- Chapter 27: 'Risk Assessment in Environmental Health', in Frumkin, 2016.

Week 6: 7-Oct-19 (NO CLASS – LABOUR DAY PUBLIC HOLIDAY)

Make up day on Friday 4 Oct (Week 5)

Week 7: 14 – 20 Oct

SEMESTER BREAK – No Class

Week 8: 21-Oct-19

Air, water and health

Required Reading:

- World Health Organization (2019) [Ambient \(outdoor\) air quality and health](#) – fact sheet
- World Health Organization (2019) [Household air pollution and health](#) – fact sheet
- Chapter 16: 'Water and Health', in Frumkin, 2016.

Aboriginal Environmental Health

Guest lecturer: NSW Health, Aboriginal Environmental Health Unit (TBA)

Required reading:

- NSW Health (2010) [Housing for Health: Aboriginal Environmental Health Project](#)
Review the web page [last accessed 21 May 2019]

Week 9: 28-Oct-19

Climate change,

Required Reading:

- Watts, N, Adger WN, Ayeb-Karlsson S, Bai Y, Byass P, Campbell-Lendrum D, et al (2017). The Lancet Countdown: tracking progress on health and climate change. The Lancet, vol 389: 1151–64 (See NYU Classes for copy of this article)

Disasters & disaster preparedness

Required Reading:

- Chapter 24, 'Environmental Disasters' Frumkin, 2016

Week 10: 4-Nov-19

Mid-term Exam 2 (15%)

Hazardous Waste - Case study: Asbestos – the Australian and global situation

Required Reading:

- Chapter 17: 'Solid and hazardous waste', in Frumkin, 2016.

Week 11: 11-Nov-19

Field Trip - The built environment & health

The field trip will enable the students to see and consider different aspects of planning for health in an urban environment. We will travel to Redfern and visit the Mirvac Indigenous roof top garden (**TBC**) to learn about urban food production in Sydney's inner city – believed to be the first of its kind in Australia. The garden was shaped by considerations of environmental, social and financial sustainability but from an Indigenous Australian perspective. We will also undertake a playground safety assessment using KidSafe's playground safety checklist on a public playground and the National Heart Foundation's walkability checklist.

Week 12: 18-Nov-19

Principles of Epidemiology (Christine Linhart – TBC)

Required Reading:

- Chapter 4: 'Environmental and Occupational Epidemiology', in Frumkin, 2016.

The environment and health behaviour – global and local issues (Christine Linhart-TBC)

Required Reading:

- Popkin, B.M. (2015). Nutritional transition and the global diabetes epidemic. *Current Diabetes Reports*; 15:64, September 2015. (Locate this article through NYU online library)

Week 13: 25-Nov-19

Healthy built environments

Guest lecturer: Dr Jennifer Kent (TBC)

Required reading:

- Ma L, Kent J, Mulley C. (2018) Transport disadvantage, social exclusion, and subjective well-being: The role of the neighborhood environment—evidence from Sydney, Australia. *Journal of Transport and Land Use*. 11 (1); 31-47 (Locate this article through NYU online library)
- Rueda X, Cirach M, Cole-Hunter T, Dadvand P, Donaire-Gonzalez D, et al (2017) Health impacts related to urban and transport planning: A burden of disease assessment. *Environment International*. 107, 243-257(Locate this article through NYU online library)

Tobacco and environmental health

Guest lecturer: Dr Ross MacKenzie (TBC)

Required Reading:

- Novotny TE, Bialous SA, Burt L, Curtis C, da Costa VL, Usman S, et al. (2015) [The environmental and health impacts of tobacco agriculture, cigarette manufacture and consumption](#) *Bull World Health Organ* 2015;93:877–880

Week 14: 2-Dec-19

Homework Assignment 2 (15%) - In class presentations

Topic: Examining the environment for smokers in Australia – legislation, taxation and education

Required reading:

- Moodie C, and Bauld L (2015) [Evidence supports plain tobacco packaging to improve public health](#). *The Pharmaceutical Journal*, vol 294 (7843/4)

Occupational Health & Safety

Required Reading:

- Chapter 21: 'Work, health, and well-being', in Frumkin, 2016.

Week 15: 9-Dec-19

Genes, the environment and health

Required Reading:

- Collaborative on Health and The Environment (webpage) "[Gene-environment interactions & epigenetics](#)". [Last accessed 11 December 2018]

Course Wrap up

Exam Week: 16-Dec-19

Final Exam (2:00 – 4:00pm)

Course Policies

Submission of Work

Assignments (excluding in-class presentations and exams) must be submitted electronically via NYU Classes. It is the student's responsibility to confirm that the work has been successfully been uploaded. In the unlikely event that a submission to Classes fails, students must immediately submit the work to their instructor as well as the Academic Programs Coordinator via email before the original submission deadline accompanied by an explanation of the issue. Please note that the work will not be graded until it is uploaded to NYU Classes. All in-class presentations and exams must be completed during the scheduled class time. An assessment component is considered completed when the student has met all the terms for that assessment component as outlined by the instructor.

All written assignments must be submitted at the due date and time outlined in the syllabus. An assessment component receives a penalty of 2 points on the 100-point scale (for the assignment) for each day the work is late (including weekend days) up to a maximum of 10 points. If the work is completed beyond five days after the due date, it receives a mark of zero, and the student is not entitled to feedback for that piece of work. Because failure to submit or fulfil any required assessment component will result in failure of the course, it is crucial for students to complete every assignment even when it will receive a mark of zero.

Extensions

Any request for approval to submit an assignment after the due date must be received by the instructor, in writing, prior to the due date. The request must include evidence of work in progress before an extension is considered. If an extension is granted and the work is submitted by the agreed time, the late penalty will be waived. If an extension is granted and a student fails to submit within the agreed time, the late penalty will apply from the original due date of the assignment. Students will not be granted an extension because of workload commitments in other classes: assignment deadlines are available to students from the beginning of semester.

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.

It is a serious academic offense to use the work of others (written, printed or in any other form) without acknowledgement. Cases of plagiarism are not dealt with by your instructor. They are referred to the Director, who will determine the appropriate penalty (up to and including failure in the course as a whole) taking into account the codes of conduct and academic standards for NYU's various schools and colleges.

Attendance Policy

Study abroad at Global Academic Centers 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. Students are responsible for making up any work missed due to absence.

To ensure the integrity of this academic experience, class attendance at the centers is mandatory, and unexcused absences will affect students semester grades. The class roster will be marked at the beginning of class and anyone who arrives after this time will be considered absent. Students are expected to be present for the duration of the session: anyone leaving class early will also be considered absent. This attendance policy also applies for classes involving a field trip or other off-campus visits. It is the student's responsibility to arrive at the agreed meeting point on time. If you are travelling on a weekend, or during the break, you must plan to return to Sydney the day prior to your next class. No excused absences will be given to students who miss class on the same day that they return from a trip, even when this is due to circumstances outside of the student's control (such as a delayed flight).

For courses that meet once a week, one unexcused absence will be penalised by a two percent deduction from the student's final course grade. For courses that meet two or more times a week, the same penalty will apply to two unexcused absences. Repeated absences in a course may result in failure.

Faculty cannot excuse an absence. Requests for absences to be excused must be directed to the Academic Programs Coordinator. Students must provide appropriate documentation for their absence. In the case of illness, students must contact the Academic Programs Coordinator on the day of absence. They must provide medical documentation to the Academic Programs Coordinator within three days of the absence in order to be medically excused. The note must be obtained from a medical professional licensed to practise in Australia. The note must include a medical judgement indicating that the student was unfit to attend class/work on the specific day or dates of the absence. Faculty will be informed of excused absences by the Academic Programs Staff.

Religious Observance

Students observing a religious holiday during regularly scheduled class time are entitled to

miss class without any penalty to their grade. This is for the holiday only and does not include the days of travel that may come before and/or after the holiday. Students must notify their professor and the Academic Programs Coordinator in writing via email one week in advance before being absent for this purpose.

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. In all classes we expect that students will follow the common classroom expectations outlined here in order to support constructive and effective classroom experience.

- 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.
- Be mindful of the space you take up in class and make space for others.
- Listen actively and be engaged and present when others are speaking.
- Do not use profanities in class discussion (they may still occasionally appear in course readings and assignments where considered appropriate)
- Criticise ideas, not people (groups and individuals).
- Use 'I' statements when giving opinions. Don't try to speak for any group with which you identify.

You will be advised if there are additions to these common procedures for participation in this class.

Inclusion, Diversity, Belonging and Equity

NYU is committed to building a culture that respects and embraces diversity, inclusion, and equity, believing that these values – in all their facets – are, as President Andrew Hamilton has said, "...not only important to cherish for their own sake, but because they are also vital for advancing knowledge, sparking innovation, and creating sustainable communities." At NYU Sydney we are committed to creating a learning environment that:

- fosters intellectual inquiry, research, and artistic practices that respectfully and rigorously take account of a wide range of opinions, perspectives, and experiences; and

- promotes an inclusive community in which diversity is valued and every member feels they have a rightful place, is welcome and respected, and is supported in their endeavours.

Provisions to Students with Disabilities

Students with disabilities who believe that they may need accommodations in a class are encouraged to contact the Moses Centre for Students with Disabilities at (212) 998-4980 or mosescsd@nyu.edu as soon as possible to better ensure that such accommodations are implemented in a timely fashion.

Instructor Bio

Dr Jane Elkington (Ph.D., University of Minnesota) has worked in public health research, planning and policy development for over 20 years. She has worked in policy development for the NSW state health department, undertaken research for a global health organisation, and been a consultant to a variety of government and non-government organisations on a range of health issues including road safety, mental health, occupational health and safety, infectious disease prevention, and environmental planning for falls prevention. Her research interests are in injury prevention and workplace health and safety. Jane also works at Neuroscience Research Australia on studies investigating child injury prevention.