Global Environmental Health: An Interdisciplinary Introduction

Spring 2015
Social Science 5208
Tuesday, Thursday 1:00-2:15

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Office hours (Bascom 267): Tuesday, Thursday, 11:00-12:45 aba

Teaching assistants:

Emer Lucey (Lead TA), lucey@wisc.edu Office hours: Thurs., 2:30-4:30
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TA Office: MSC 1145, 1300 University Avenue

***Emer Lucey is the Lead TA for the course. Please direct all contact for course administrative matters to her.***

Introduction

The global expansion of infectious diseases and increasing health disparities between industrialized and developing countries have been among the major concerns in international health circles for at least two decades. Yet only in the past few years has an awareness of the links between these problems and the global environment increasingly emerged among public health professionals and caregivers. This course aims to expand our understanding of the intersections between major international health problems and a crisis of the global environment by outlining both contemporary and historical dimensions of this juncture to undergraduates through an interdisciplinary exposition.

The course will be divided into lecture and discussion. The course’s principal instructor will deliver many of the lectures, supplemented by faculty experts from a range of departments, to present a survey of the historical, biological, social, geographical, and cultural aspects of health and the global environment. The discussion sections, led by your TA, will be dedicated to in-depth exploration of the issues that arise in the lectures and readings.
Students will be responsible for completing four assignments. These include a map assignment, worth 10% of the final grade, and three take-home exams, each worth 25% of the final grade. Regular attendance and informed participation in discussion will count for the remaining 15% of the final grade. The grading scale for the course is as follows:

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<th>Points</th>
<th>0.0</th>
<th>0.1-1.7</th>
<th>1.71-2.3</th>
<th>2.31-2.7</th>
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<th>3.71 and above</th>
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<tr>
<td>Semester Grade</td>
<td>F</td>
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Readings will be available for electronic download via Learn@UW.

***All students must also subscribe to Edge Effects, the blog of the Nelson Institute for Environmental Studies’ Center for Culture, History, and Environment, which will provide material for a number of our discussions***

**Course Structure and Meeting Schedule**

*I. Global Health, Disease Ecology, and Society*

What, broadly construed, is the relationship between health and place? Such a question seems obvious when thinking about diseases such as malaria, which rely on a specific ecology that is favorable to the breeding of *Anopheles* mosquitoes and human habitation, with little access to both medicines that can control the disease and engineering techniques to minimize mosquito habitats. But the “natural” habitat of disease is far more complicated than the coexistence of vectors, disease reservoirs, and susceptible populations. A disease that we normally understand in virological terms—HIV—is every bit as specific to place and context as malaria. This section of the course will outline the ways in which a range of factors—the natural landscape, land use, economic policy, politics, and culture—all shape environments that are either vulnerable or resilient when faced with certain disease threats.

Jan. 20—What is the global?

Jan. 22—What is the environment?

Jan. 27 — What is health?


Jan. 29 — Health and political economy


Feb. 3 — An introduction to environmental justice (Gregg Mitman, Medical History and Bioethics; Nelson Institute for Environmental Studies)


Feb. 5 — Health and human rights


MAP ASSIGNMENT DUE IN CLASS THURSDAY, FEB. 5

Feb. 10 — Political ecology and vulnerability (Matt Turner, Geography)


Feb. 12 — The globalization of disease, part 1: Two views


Feb. 17 — Film: *Darwin’s Nightmare*

Feb. 19 — *Darwin’s Nightmare* and discussion: ecologies of AIDS

Feb. 24 — The globalization of disease, part 2: Ecologies of AIDS

Feb. 26—Overflow and review

**II. Climate**

At least since Hippocrates, medical thinkers have pondered the relationship between climate and constitution. How do meteorological conditions—over both the short and long terms—shape health? What is the relationship between geography and health? For explorers in a period of expanding empire, the tropics represented a “white man’s grave,” a landscape suitable only for exploitation by local or expendable labor forces. At present, we recognize a range of emerging health threats linked to anthropogenic climate change. What, if any, continuity links these two perspectives on climate and health? The course will survey the historical development of this relationship before drawing on campus expertise to explore the contemporary dimensions of this problem.

March 3—Health effects of global climate and ecological change


FIRST TAKE-HOME EXAM DUE IN CLASS TUESDAY, MARCH 3

March 5—Climate change, ethics, and intergenerational justice (Paul Kelleher, Medical History and Bioethics)

Reading: TBA

**III. Population, Urbanization, and Sustainability**

Many have linked the contemporary crisis in global health to unsustainable population growth. Indeed, anxiety over population growth has fueled both the promotion of women’s access to safe, reliable contraception, but also some notably more disturbing efforts at global population control, including India’s Emergency in the mid-1970s and the development of the one-child policy in China in the 1980s. Yet such concerns are not new. Economist and demographer Thomas Malthus brought these issues to the fore in the context of English industrialization in the late eighteenth century, and well into the twentieth century Europeans and Americans fretted about how to increase the size of “desirable” populations while minimizing the expansion of the poor. How can we feed a growing population? Will the next war be fought over water, rather than oil, as a precious resource? How and in what ways are these conflicts already happening—in Ethiopia in the 1980s, in Zimbabwe at
present, in the West Bank and Gaza? This segment of the course will explore the historical relationship between food, population, and health on a global scale. We will also investigate urbanization and land use in this segment of the course. For the first time, the world’s urban population now exceeds the rural population. More troubling, most urban population growth is taking place in unplanned slums in developing countries with few social services. These emerging communities are breeding grounds for a range of infectious diseases. The course will explore these new problems in the context of urbanization and the anxieties it has historically produced, as well as the problems of a depopulated rural environment with decreasing opportunities.

March 10—Population growth: from Malthus to Ehrlich (Emer Lucey, History of Science)

Reading: Thomas Malthus, *The Principles of Population* (selections)
Paul Ehrlich, *The Population Bomb* (selections)

March 12—Agriculture and population growth (Monica White, Community and Environmental Sociology and the Nelson Institute)

Reading: TBA

March 17—Feeding the world: An immodest history


March 19—Feeding the world, continued

March 24—Industrialization and urbanization, then and now


March 26—Cities and the built environment (Annemarie Schneider, Center for Sustainability and the Global Environment)—Tentative


March 31-April 2: No Class—Spring Break

April 7—Environmental refugees
IV. Energy, Consumption, and Exposure

Concerns about population growth and resource consumption involve energy as much as they involve food and water. Moreover, our insatiable demand for energy has led directly to the greatest technogenic catastrophes of the contemporary era: the explosion at Chernobyl, innumerable deaths and immeasurable destruction of landscapes linked to coal and natural gas production, and countless oil spills. The course will explore this relationship among energy production, consumption, and emerging health threats. What is the relationship between economic growth, the rise of mass consumption, and toxicity? Are we buying ourselves to death? This unit aims toward a conclusion in the course by linking historical and contemporary patterns of consumption to concerns about sustainability and contamination.

April 9—Energy in an industrial economy


April 14—Energy and resources in the developing world


Andrew Rice, ”Is There Such a Thing as Agro-Imperialism?” The New York Times Magazine (16 November 2009).

April 16—Disaster and vulnerability in the industrialized world


April 21 — Disaster in the developing world: Bhopal (Lalita du Perron, Center for South Asian Studies)

Reading TBA

April 23 — Slow violence: Vulnerability and global environmental justice

Reading: Rob Nixon, Slow Violence, selections.

April 28 — Film: The Waste Land

April 30 — The nuclear age (Paul Wilson, Nuclear Engineering)

Reading: TBA

May 5—Toxic exposure

Reading: Nancy Langston, “The Retreat from Precaution: Regulating Diethylstilbestrol (DES), Endocrine Disruptors, and Environmental Health,” Environmental History 13 (January 2008): 41-65

Nancy Langston, preface and conclusion, Toxic Bodies (Yale University Press, 2010).

May 7—Conclusions

FINAL EXAM DUE TUESDAY, MAY 12, AT 12:05 PM IN MSC 1135.