Medical History and Bioethics 213
Global Environmental Health: An Interdisciplinary Introduction

Spring 2017
19 Ingraham Hall
Tuesday, Thursday 1:00-2:15

Professor Emer Lucey, Department of the History of Science
lucey@wisc.edu
Office hours (1143 MSC, 1300 University Avenue): Tuesday, Thursday, 2:30-3:30 aba

Teaching assistants:
Will Voinot-Baron (Lead TA), voinotbaron@wisc.edu
Bailey Albrecht, balbrecht2@wisc.edu
Carmen Niemeyer, eniemeyer@wisc.edu
Office hours: TR 2:30-3:30
Office hours: F 10-12
Office hours: R 2:30-4:30

TA Office: MSC 1145, 1300 University Avenue
** Will Voinot-Baron is Lead TA for the course. Please direct administrative matters to him.**

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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<tr>
<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>
<th>2.71-3.3</th>
<th>3.31-3.7</th>
<th>3.71 and above</th>
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<td>Grade</td>
<td>F</td>
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<td>BC</td>
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Readings will be available for electronic download via Learn@UW.

**Accommodations**

The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. The TAs and I will work either directly with the student or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA.

**Course Structure and Meeting Schedule**

*Global Health, Disease Ecology, and Society*

What is the relationship between health and place? For certain diseases, the answer seems obvious. For example, malaria is reliant on a specific ecology that produces the breeding grounds for *Anopheles* mosquitoes alongside areas of human habitation. However, specific political, economic, historical, and cultural factors mediate this threat, as the risk of malaria is also dependent on the absence of medicines that can control the disease and engineering techniques to
minimize mosquito habitats. The seemingly “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.

Week 1

Jan. 17—Introduction: What is the global?

Jan. 19—What is the environment?

Reading: Rob Nixon, “The Anthropocene: The Promise and Pitfalls of an Epochal Idea,”
http://edgееffeсtѕ.нет/anthropocene-promise-and-pitfalls/

Week 2

Jan. 24—What is health?

Reading: Mark Jerome Walters, Six Modern Plagues and How We Are Causing Them

Jan. 26—Health and political economy

Reading: Paul Farmer, AIDS and Accusation: Haiti and the Geography of Blame

Week 3

Jan. 31—An introduction to environmental justice


Feb. 2—Health and human rights

Reading: Jonathan Mann et al., “Health and Human Rights,” Health and Human Rights: An

Film clip: Paul Farmer, “Rethinking Health and Human Rights”
http://www.youtube.com/watch?v=lwy22pXrig8

MAP ASSIGNMENT DUE IN CLASS THURSDAY, FEB. 2

Week 4

Feb. 7—Political ecology and vulnerability


Feb. 9—The globalization of disease, part 1: Two views


Week 5

Feb. 14—The globalization of disease, part 2: Plagues, peoples, and places


Feb. 16—The globalization of disease, part 3: Ecologies of AIDS

Week 6

Feb. 21—Film: *Darwin's Nightmare*

Feb. 23—Disease eradication


II. Climate

At least since Hippocrates, the relationship between climate and constitution has been a topic of medical debate. 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, drawing on campus expertise to explore the contemporary dimensions of this problem.

Week 7

Feb. 28—Climate change, ethics, and intergenerational justice (Paul Kelleher, Medical History and Bioethics)

  Reading: TBA

FIRST TAKE-HOME EXAM DUE IN CLASS TUESDAY, FEBRUARY 28

Mar. 2—Health effects of global climate and ecological change

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 and 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 concerns over population growth 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. Troublingly, 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 and public health hazards. 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.

Week 8

March 7—Agriculture and population growth (Monica White, Community and Environmental Sociology and the Nelson Institute)

Reading: TBA

March 9—Population growth: from Malthus to Ehrlich


Week 9

March 14—Feeding the world

March 16—Feeding the world, continued


Week 10

March 21-23—No class—Spring Break

Week 11

March 28—Industrialization and urbanization, then and now


March 30—Health, development, and gender (Lori DiPrete Brown, Global Health Institute—tentative)


SECOND TAKE-HOME EXAM DUE IN CLASS THURSDAY, MARCH 30

Week 12

April 4—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 6—Energy in an industrial economy


Week 13

April 11—Energy and resources in the developing world


April 13—Disaster in the developing world: Bhopal

Reading: TBA

Week 14

April 18—Disaster and vulnerability in the industrialized world (Richard Keller, Medical History and Bioethics—tentative)


January 2013).

April 20 — Slow violence: vulnerability and global environmental justice


**Week 15**

April 25 — Film: *The Waste Land*

April 27 — The nuclear age (Paul Wilson, Nuclear Engineering)

Reading: TBA

**Week 16**

May 2 — Toxic exposure


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

May 4 — Review (Will Voinot-Baron, Anthropology)

**FINAL EXAM DUE MAY 7, NO LATER THAN 4:45 PM; LOCATION TBA**