

University of Wisconsin-Madison**History of Science/Environmental Studies 213
Global Environmental Health****Spring 2023****Tuesday/Thursday 11-12:15
Humanities 2340****Credits: 3****Course Designations and Attributes****Requisites:** None**Course Designation:** Either Humanities or Social Science**Level** – Elementary**L&S Credit** - Counts as Liberal Arts and Science credit in L&S**Repeatable for Credit:** No**Official Course Description, Designations, Requisites, and Attributes:**

The course provides an introduction to the intersections of health and environment on a global scale. Exposes students to a range of problems in global environmental health, including climate change, disease ecology, and the globalization of disease.

Instructional Modality: Face-to-face synchronous**How credits are earned:** One hour (i.e. 50 minutes) of classroom or direct faculty/instructor instruction and a minimum of two hours of out of class student work each week per credit over approximately 15 weeks.**Instructors & Teaching Assistants**

Principal instructor: Professor Richard C. Keller, Department of Medical History and Bioethics and Department of History
rckeller@wisc.edu (Office hours: Thur, 1-3, Medical Sciences Center 1423)

Teaching Assistants

Ayodeji Adegbite, aadegbite@wisc.edu (Office hrs: Tues., 1-3, Humanities 4260)

Cameron Daddis, daddis@wisc.edu (Office hrs: Tues., 1-3, Humanities 4260)

Duygu Eriten, findik@wisc.edu (Office hrs: Thurs., 8:50-10:50, Humanities 4260)

Course Learning Outcomes

By the end of this course, students will:

- Recognize the utility of humanistic methods for the study of global environmental health
- Develop critical thinking skills through techniques of close reading and written analysis
- Understand essential developments in the evolving relationship between the environment and public health on a global scale.

Grading

The course is graded on an A-F scale:

A: 90-100

AB: 85-<90

B: 80-<85

BC: 75-<80

C: 70-<75

D: 60-<70

F: 0-<60

Course Website, Learning Management System & Digital Instructional Tools

The course's Canvas page will be the main source for distributing lectures and many other materials. It will also be the main site for discussion forums linked to your discussion section.

Discussion Sessions

Your TA will contact you with specific requirements linked to your discussion section. Discussions will be synchronous and face-to-face, and require that you review materials before your discussion meeting. Regular attendance and informed participation in discussion will constitute 25% of your final grade.

Required Texts & Other Course Materials

Each meeting listed on the syllabus has its own module on Canvas. All materials for each meeting—including a short introductory lecture and any readings, videos, or podcasts—will be available in the module.

Other materials include videos, films, and podcasts. Links are either on the syllabus or (in the case of films) will be provided at a later date, but in time for you to view them before the scheduled lecture. You may also find the podcasts on Apple podcasts, Spotify, or another provider, but please make sure they are the same as

those listed on the syllabus. Please contact me if you are unable to access any materials.

I strongly suggest that you read, view, or listen to materials on the syllabus in the order in which they are listed. You must review these materials before your discussion section, as they will constitute the basis of your synchronous discussions with your TA.

Exams

There will be three exams in the course of the semester, each of which is worth the following percentage of your final grade. They are take-home, unproctored exams: you will receive a question two weeks prior to the deadline and will complete the exams independently.

1. Exam 1: 25%. 5-7 page double-spaced paper, based on course materials. Due **March 3**
2. Exam 2: 25%. 5-7 page double-spaced paper, based on course materials. Due **April 12**
3. Exam 3: 25%. 5-7 page double-spaced paper, based on course materials. Due **May 11**

The remaining 25% of your grade relies on regular attendance and informed participation in discussions.

THE USE OF AI TOOLS SUCH AS ChatGPT IS STRICTLY FORBIDDEN IN THIS COURSE!

How to Succeed in This Course

Doing well in this course requires your commitment to reading and reviewing materials and paying close attention to lectures. I have done my best to base the course on engaging materials and to keep the readings short and manageable. Other key strategies include getting an early start on the written exams. In each case, I will distribute the exam question two weeks before it is due so that you can keep the question in mind as you do the reading/viewing/listening for each lecture and discussion. You may also contact your TA or me with specific questions about your exams before the deadline. Other resources at your disposal include:

- [The Writing Center](#)
- [The History Lab](#)
- [University Health Services](#)
- [Undergraduate Academic Advising and Career Services](#)
- [Office of the Registrar](#)
- [Office of Student Financial Aid](#)

- [Dean of Students Office](#)

Course Evaluations

Students will be provided with an opportunity to evaluate this course and your learning experience. Student participation is an integral component of this course, and your confidential feedback is important to me. I strongly encourage you to participate in the course evaluation.

UW-Madison now uses an online course evaluation survey tool, [AEFIS](#). In most instances, you will receive an official email two weeks prior to the end of the semester when your course evaluation is available. You will receive a link to log into the course evaluation with your NetID where you can complete the evaluation and submit it, anonymously. Your participation is an integral component of this course, and your feedback is important to me. I strongly encourage you to participate in the course evaluation.

Privacy of Student Information & Digital Tools: Teaching & Learning Analytics & Proctoring Statement

The privacy and security of faculty, staff and students' personal information is a top priority for UW-Madison. The university carefully reviews and vets all campus-supported digital tools used to support teaching and learning, to help support success through [learning analytics](#), and to enable proctoring capabilities. UW-Madison takes necessary steps to ensure that the providers of such tools prioritize proper handling of sensitive data in alignment with FERPA, industry standards and best practices.

Under the Family Educational Rights and Privacy Act (FERPA which protects the privacy of student education records), student consent is not required for the university to share with school officials those student education records necessary for carrying out those university functions in which they have legitimate educational interest. 34 CFR 99.31(a)(1)(i)(B). FERPA specifically allows universities to designate vendors such as digital tool providers as school officials, and accordingly to share with them personally identifiable information from student education records if they perform appropriate services for the university and are subject to all applicable requirements governing the use, disclosure and protection of student data.

Privacy of Student Records & the Use of Audio Recorded Lectures

See information about [privacy of student records and the usage of audio-recorded lectures](#).

Lecture materials and recordings for this course are protected intellectual property at UW-Madison. Students in this course may use the materials and recordings for

their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation. [Regent Policy Document 4-1] Students may not copy or have lecture materials and recordings outside of class, including posting on internet sites or selling to commercial entities. Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor's express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university's policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.

[Please see this link for information on Students' Rules, Rights, and Responsibilities](#)

Covid-19

During the global Covid-19 pandemic, we must prioritize our collective health and safety to keep ourselves, our campus, and our community safe. As a university community, we must work together to prevent the spread of the virus and to promote the collective health and welfare of our campus and surrounding community.

IF YOU FEEL AT ALL SICK, PLEASE DO NOT ATTEND CLASS. Attendance is important for this class, but it is not a requirement. After every lecture, I will post the lecture slides and lecture audio (with captions) to Canvas, so you will still be able to access the course content. In the event you cannot attend discussion, you may still participate via the discussion thread for your section on Canvas.

Quarantine or Isolation Due to COVID-19

Student should continually monitor themselves for COVID-19 symptoms and get [tested](#) for the virus if they have symptoms or have been in close contact with someone with COVID-19. Student should reach out to instructors as soon as possible if they become ill or need to isolate or quarantine, in order to make alternate plans for how to proceed with the course. Students are strongly encouraged to communicate with their Instructor concerning their illness and the anticipated extent of their absence from the course (either in-person or remote). The instructor will work with the student to provide alternative ways to complete the course work.

Diversity & Inclusion Statement

[Diversity](#) is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research,

outreach, and diversity as inextricably linked goals. The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.

Academic Integrity Statement

By virtue of enrollment, each student agrees to uphold the high academic standards of the University of Wisconsin-Madison; academic misconduct is behavior that negatively impacts the integrity of the institution. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these previously listed acts are examples of misconduct which may result in disciplinary action. USE OF AI TOOLS SUCH AS ChatGPT CONSTITUTES A VIOLATION OF ACADEMIC INTEGRITY. Examples of disciplinary action include, but is not limited to, failure on the assignment/course, written reprimand, disciplinary probation, suspension, or expulsion.

Accommodations for Students with Disabilities Statement

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 [me] 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. Faculty [I], will work either directly with the student [you] 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. (See: [McBurney Disability Resource Center](#))

Academic Calendar & Religious Observances

See: <https://secfac.wisc.edu/academic-calendar/#religious-observances>

Course Introduction

As the Covid-19 crisis has made clear, the global expansion of infectious diseases and increasing health disparities between industrialized and developing countries are a major source of vulnerability. Yet only in recent 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. I will deliver lectures each Tuesday and Thursday. (Occasionally, these lectures will come from other campus experts in the field.) Each of these dates will also include additional materials, including readings, videos, and podcasts. You should review these materials as soon as possible each week, but certainly before your discussion meeting.

Attendance at synchronous discussion meetings is required. As stated above, attendance and informed participation in discussion will constitute 25% of your final grade.

The discussion sections, led by your TA, will be dedicated to in-depth exploration of the issues that arise in the lectures and readings. Your TA will also set up discussion forums on Canvas where you may participate as well.

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. 24—Introduction, and what is the global?

Video:

[The “Cost” of Globalization](#)

[Will covid kill globalization? The Economist](#)

Jan. 26— What is the environment?

Reading:

Gaia Vince, “[The Anthropocene: Welcome to the Age of Modern Man.](#)” *BBC Smart Planet: Earth* (18 November 2014).

Rob Nixon, “[The Anthropocene: The Promise and Pitfalls of an Epochal Idea.](#)” *Edge Effects* (6 November 2014).

Video:

[Welcome to the Anthropocene](#)

Watch interview with Gaia Vince [here](#)

Jan. 31— What is health?

Video:

[Vert skateboarding in an ecological frame—Emer Lucey](#)

Reading:

Sabine Poux, “[Social-Ecological Model Offers a New Approach to Public Health.](#)” Borgen Project (5 August 2017).

Feb. 2— Health and political economy

Reading:

Nancy Scheper-Hughes, “[Death Without Weeping.](#)” *Natural History* (1989): 8-16.

Video:

[We can’t achieve peace without addressing structural violence—Temi Mwale](#)

[Histories of Political Economy and Health in Egypt: A Conversation with Jennifer Derr](#)

Feb. 7—Political ecology

Reading:

Paul Robbins, "[The Hatchet and the Seed](#)," in *Political Ecology* (Oxford: Blackwell, 2004), 3-16.

Podcast:

[Biodiversity Speaks: Political Ecology of Monoculture Plantations in Asia](#)

Video:

[The myth of the Tragedy of the Commons](#)

Feb. 9—Environmental justice

Reading:

Linda Villarosa, "[Pollution is Killing Black Americans. This Community Fought Back](#)," *New York Times Magazine*, July 28, 2020.

Podcast:

[Broken Ground: Dr. Robert Bullard: Environmental Justice is Equal Justice](#)

Feb. 14—Health and human rights

Reading:

Sofia Gruskin, et al., "[History, Principles, and Practice of Health and Human Rights](#)," *The Lancet* 370, no. 9585 (2007): 449-55.

Podcast:

[I am GPH: Human Rights Clinic with Lauren Pessa](#)

Feb. 16—Global disease ecology: Ebola in West Africa

Reading:

Adia Benton, "[The Not-So-Secret Serum](#)," *Dissent* (16 August 2014).

Film:

[In the Shadow of Ebola](#) (2014; Sarita Siegel, Gregg Mitman, dirs.)

Feb. 21—Global disease ecology: Covid-19

Reading:

Emer Lucey, "[Absolutely Disgusting: Wet Markets, Stigma Theory, and Xenophobia](#)," *Nursing Clio* (2 June 2020).

Odette K. Lawler et al., "[The COVID-19 Pandemic is Intricately Linked to Biodiversity Loss and Ecosystem Health](#)," *The Lancet-Planetary Health* (November 2021).

Feb. 23—Global disease ecology: HIV/AIDS, part 1: The US experience

Film:

[How to Survive a Plague](#) (2012; David France, dir.)

Feb. 28—Global disease ecology: HIV/AIDS, part 2: AIDS in the developing world

Reading:

Anna Talman, et al., "[Interactions Between HIV/AIDS and the Environment: Toward a Syndemic Framework](#)," *American Journal of Public Health* 103, no. 2 (2013): 253-61.

Rebecca Davis and Marc Silver, "[No Sex for Fish: How Women in a Fishing Village are Fighting for Power](#)," Goats and Soda, 26 December 2019

Film:

Darwin's Nightmare (2002; Hubert Sauper, dir.)

March 2: Review and overflow

FIRST EXAM DUE VIA CANVAS, MARCH 3

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 7 — Health effects of global climate and ecological change

Video:

[Climate Change is Affecting Our Health. Is There a Cure?—Jonathan Patz](#)

Reading/podcast:

Dan Charles, [It's 2050 and This Is How We Stopped Climate Change](#),” Goats and Soda (11 March 2019).

March 9— Climate change, demography, and disaster: Heat waves

Reading:

Richard Keller, "[Heat and Death in France: The Social Ecology of Catastrophe](#)," *Natural Hazards Observer* 35, no. 2 (2010): 10-13.

Richard Keller, "[Europe's killer heat waves are a new norm. The death rates shouldn't be](#)," *Washington Post*, July 26, 2019.

Film:

[Cooked](#) (2018; Judith Helfand, dir.)

MARCH 14-16: NO CLASS MEETING, SPRING BREAK

III. The Country and the City: Population, Agriculture, 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. How can we feed a growing population? Will the next war be fought over water, rather than oil, as a precious resource? 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 21— Agriculture and environment: A deep dive

Reading:

Richard C. Keller, [Environment: A World History](#) (forthcoming), selections.

Podcast:

[A Worldview Apart: Richard Manning on Looking Critically at Agriculture](#)

March 23— Population growth

Readings:

Thomas Malthus, [*The Principles of Population*](#) (selections)

Lianna Zimmerman and Travid Rieder, "[Is Population Control a Climate Change Solution?](#)" *Hopkins Bloomberg Public Health* (26 October 2022)

March 28—Feeding the world

Film:

[Dirt](#) (2009; Gene Rosow, Bill Benenson, dirs.)

March 30— Industrialization and urbanization, then and now

Reading:

Mike Davis, "[Planet of Slums: Urban Involution and the Informal Proletariat](#)," *New Left Review* 26 (2004): 5-34.

Podcast:

[The New Economy: Urbanization](#)

April 4—Cities, the built environment, and sprawl

Reading:

Barbara McCann and Reid Ewing, [Measuring the Health Effects of Sprawl: A National Analysis of Physical Activity, Obesity, and Chronic Disease](#) (Washington, DC: Smart Growth America, 2003).

Video:

[What is urban sprawl?](#)

April 6—Environmental refugees

Reading:

Abrahm Lustgarten, "[How Climate Migration Will Reshape America](#)," *The New York Times Magazine*, September 20, 2020

Video:

[Sundarbans: The Next Climate Refugees](#)

April 11—Review and overflow

SECOND EXAM DUE VIA CANVAS, APRIL 12

IV. Energy, Consumption, and Exposure

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 13— Energy, oil, and development

Reading:

Toby Jones, "[Saudi Alchemy: Water into Oil, Oil into Water](#)," *Middle East Report* 254 (Spring 2010), 24-29.

Friends of Earth International/Gender Action, [Broken Promises: Gender Impacts of the World Bank-Financed West-African and Chad-Cameroon Pipelines](#), 2001.

Podcast:

[The Story Collider—Oil: Stories from the Deepwater Horizon Oil Spill](#)

April 18—Agriculture and annexation

Reading:

Jordan Abu-Sirriya, "[How the Gulf States' Investments are Destabilizing the Horn of Africa](#)," *Georgetown Security Studies Review* (19 March 2019).

Ella Nilson, "[Wells are running dry in drought-weary Southwest as foreign-owned farms guzzle water to feed cattle overseas](#)," *CNN* (27 November 2022).

April 20—Consumption and exposure in developing countries

Reading:

Kim Fortun, [Advocacy after Bhopal: Environmentalism, Disaster, New Global Orders](#) (Chicago: University of Chicago Press, 2001), selections.

Burkhard Bilger, "[Hearth Surgery](#)," *The New Yorker* (21 December 2009).

April 25— Slow violence: Vulnerability and global environmental justice

Reading:

Rob Nixon, [*Slow Violence and the Environmentalism of the Poor*](#) (Cambridge: Harvard University Press, 2011), selections.

Video:

[Rob Nixon: Gov't Inaction on Climate Change Is "Slow Violence" That Hits World's Poor the Hardest](#)

April 27—Slow violence in action: The informal economy and labor in Brazil

Film:

The Waste Land (2010; Lucy Walker, dir.)

May 2—Toxic exposure

Reading:

Farhana Sultana, "[Gendered Waters, Poisoned Wells: Political Ecology of the Arsenic Crisis in Bangladesh](#)," in *Fluid Bonds: Views on Gender and Water*, ed by K. Lahiri-Dutt (Canberra: Australian National University Press), pp. 362-86.

May 4— Review and conclusions

FINAL EXAM DUE VIA CANVAS, MAY 11, 9:45 AM