

## BIOL/ENVI 194: Health in the Anthropocene

Tuesdays and Thursdays 1:20-2:50 PM, Olin-Rice 205

*Civilization exists by geological consent, subject to change without notice. - Will Durant*



*(Image: Oxford Martin School, UK)*

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Olin-Rice 213

Office hours: Drop in Tuesdays, 3-4:20 PM and Wednesdays, 10-11:30 AM or by appointment

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This class interrogates the interplay of the forces that shape the interconnected health of human populations and planet on which we live. One of the largest issues of environmental justice that affects health is human-caused climate change. Human-environment interactions in health also play out in tiny ways, every day – the water we drink, the food we eat, illnesses we contend with. These large and small issues intertwine in numerous ways. What and how we eat, drink, travel, use energy all reflect the ways in which and the scales at which we extract resources from our environment and ask us to consider the impacts of these activities on our environment which includes our own species. In this course, we will bookend our work with “views” of the large scale – looking back to history of health and climate interactions and into present/future interactions of health and anthropogenic climate change. Between those, we will delve into the stories of water, food, illnesses on a smaller scale. We will explore these topics using readings from assigned texts, films, field trips, writing projects and expressive/artistic inquiry.

## Course objectives

1. Learn about environmental health histories and current challenges in local and global populations using personal narratives and population studies in the popular and professional literature. Apply this knowledge toward your own exploration and understanding of human and planetary health.

2. Using the content above as framework, use assigned course work to practice

- Critical and connective use of text and film
- Reflective and analytical writing
- Evidence gathering and evidence-based argumentation
- Building a respectful community of collaborative listening and learning
- Exploring the power of expressive in transforming our understanding of environmental and population health

3. Settle in. This course is a FYC – your home-base for the first semester of college. The general structure of the class (emphases on writing and community building) and scheduled specific activities (Library Instruction Day) are intended to acquaint you with Macalester life, resources and academic practices and ease your transition into this new journey. Pay attention to the ways in which you learn best and to areas where you need to work more intentionally. Be generous with your contributions to our community and bravely ask for help when you need it. I believe that the surest path to successful learning in a course is to help at least one other person in your class be more successful than they would otherwise have been. As a team, you will live together, learn together and support one another. I am here to guide, listen, and learn with you. Please do not hesitate to reach out to me.

## Readings

- *Climate change and the health of populations* (Anthony McMichael et al.)
- *What the eyes don't see* (Mona Hanna-Attisha)
- *The case against sugar* (Gary Taubes)
- *Six modern plagues* (Mark Walters)
- *Field notes from a catastrophe* (Elizabeth Kolbert)

Additional readings and resources will be posted periodically on the course website on Moodle.

## Films

- *Living downstream* (dir. Chanda Chevannes)
- *Troubled waters* (dir. Larkin McPhee and Barbara Coffin)
- *Running dry* (dir. Jim Thebaut)
- *Food, Inc* (dir. Robert Kenner)
- *Seed: the untold story* (dir. Taggart Siegel, Jon Betz)
- *Contagion* (dir. Steven Soderbergh)
- *Black Gold* (dir. Nick Francis)

We will usually watch and discuss excerpts of films in class some of which will be assigned for you to watch on your own. A couple of times during the semester, we will have a Wednesday evening “movie night” hosted by one or both of the TAs (with popcorn!) to watch a film together.

### **Field trips (mark these on your calendar ASAP)**

- Blue Lake Wastewater Plant, Shakopee, MN – Tues, Oct 9
- Hmong American Farmers Association Farm, Vermillion Township, MN – Tues, Oct 30
- Minnesota Department of Health, Saint Paul, MN – Tues, Nov 20 (lunch included)
- Tiny Footprint Coffee, Brooklyn Center, MN – Tues, Dec 4

On the 4 Tuesdays when we have scheduled field trips, we will typically leave campus by bus as a group around 11:30 or 11:45 AM usually returning by 3 PM. Please plan your schedules accordingly. If you are not able to go on a field trip, please let me know and we will discuss an alternative assignment for you to complete. **IMPORTANT:** Please request bag lunches from Café Mac on Oct 9, Oct 30 and Dec 4 – you will either eat before we leave or on the bus.

### **Sequence of topics, readings and films**

Weeks 1-3 - Historical overview of how climate made us human and shaped the health of populations - Readings from McMichael et al.

Weeks 3-6 - Water: global and local challenges to health - Readings from Hanna-Attisha, films - Running Dry, Living Downstream, Troubled Waters, field trip to Blue Lake Wastewater

Weeks 7-9 - Food: building and destroying our bodies - Readings from Taubes, films - Food, Inc. and Seed, field trip to Hmong American Farmers Association

Weeks 10-11 - Emerging diseases and climate change - Readings from Walters, film - Contagion, field trip to Minnesota Department of Health

Week 12-14 - Looking ahead: Climate change activism - Readings from Kolbert, field trip to Tiny Footprint Coffee, film - Black Gold

Week 15 - Art gallery and wrap-up (Quinn Rivenburgh will work with our class on Oct 11 and Nov 6. They will be available for individual consultation for final projects in late November/early December)

### **Assignments (and percent of course grades)**

*Details of assignments will be available on the course website on Moodle.*

- Participation (including attendance, being prepared for class, participating in discussion and class activities, field trip engagement) – 15%
- 10 Weekly reflections (due most Saturdays by 9 PM; 12 opportunities) – 20%

- Where does (my) water come from? – 1500-word investigative paper on drinking water in a place of your choosing (due before Fall Break) - 15%
- 1500-word “problem & solution” paper on population environmental health issue of choice (due before Thanksgiving Break) – 15%
- Revision of one (of your choosing) of these short papers (due by end of classes) – 15%
- Participation in gallery and artist statement (last day of class) – 15%
- 1 Bio/Enviro Thursday seminar attendance + short written reflection (12:00 noon, Sept 27 or Nov 15; Olin-Rice 250)- 5%

Course grade calculations: A = 95%+; A- = 91-94% B+ = 86-90%; B = 80-85%; B- = 76-79%; C+ = 70-75%; C = 66-69%; C- = 60-65%; D = < 60%, F/NC = <50%

## **Policies**

I expect you to attend all scheduled class meetings and hand in work on time. If there are scheduled athletic/extra-curricular events that prevent you from attending certain class sessions, please let me know in advance. Unexplained absences will lower your participation grade. Late work will be accepted for up to 3 days after the deadline with a 50% deduction from points you earn for the assignment. If substantial personal or family emergencies arise, let me know with as much notice as possible and we can work out an alternate arrangement in consultation with the Dean of Students’ Office if needed. I may ask you to use laptops or smartphones etc. for an in-class activity. Use these devices responsibly, ethically and respectfully at all times.

## **Accommodations**

Macalester facilitates academic accommodations for documented needs. Details are at <https://www.macalester.edu/studentaffairs/disabilityservices/accommodations/> and I will work with you to support your work in the course according to a plan that best fits your needs.

## **Special events**

### **Playground build (service project)**

Sept 28, 4:30-8:30 PM - Three first-year courses (ours and those taught by Professor Beth Severy-Hoven in Classics and Professor Louisa Bradtmiller in Environmental Studies) will join in a playground building activity organized by Vivienne’s Joy Foundation (<https://www.viviennesjoy.org/>) - a group dedicated to awareness of and fundraising for Sudden Unexplained Death in young children. You are invited to join the project. You will receive updates and details by signing up at <https://www.viviennesjoy.org/volunteer-for-playground-build.html>. Buses and packed meals will be provided by the Civic Engagement Center and VJF will provide drinks and snacks. I hope to see you there.

## **Dinner**

@ Devavani’s and Louisa’s house at 244, Macalester St. in Saint Paul on Saturday, December 8 at 5:30 PM. It is a 4-minute walk from Olin-Rice - the white house at the corner of St. Clair Ave and Macalester Street.