

Hunter College  
Urban Water: Supply and Management  
URBP 7871V-01, URBS 4031W-01, GEOG 70529-01  
Spring 2023

## Syllabus (V1 1/28/23)

### Course Overview

**Instructors:** Allan Frei (he/him) and Lily Baum Pollans (she/her)

**Class time:** Tuesdays, 4-6:50PM

**Location:** North Building C109

**Office hours:** Frei: by appointment

Pollans: <https://calendly.com/lilybpollans/office-hours>

**Contact:** [afrei@hunter.cuny.edu](mailto:afrei@hunter.cuny.edu); [lily.pollans@hunter.cuny.edu](mailto:lily.pollans@hunter.cuny.edu)

**Course Description** Water is critical to human life. But it can also be a deadly threat. Cities, therefore, can only exist to the extent that they are able to successfully manage water. In this course students will learn about the history and technology of urban water supply systems from ancient times to present; critical concepts in the field of water management; as well as the historical evolution of problems and solutions of supplying water to cities and managing wastewater, including recent state of the art developments.

In addition, students will learn about the politics of water in the city. We will consider how infrastructure is provided and how decisions are made in different contexts. We will ask who urban water infrastructure serves well, and who is excluded, and who gets to participate in decision-making. In answering these questions, we will unveil the ways that water reflects and reproduces patterns of political and economic power in society.

The course will be run with a combination of lecture and seminar style activities, including student discussions and presentations.

### Learning Outcomes

1. Students will be able to describe different stages in the history of urban water supply.
2. Students will be able to describe critical concepts related to urban water systems.
3. Students will be able to describe the historical evolution, and current state-of-the-art, of the problems and solutions of managing water in cities.
4. Students will be able to critically analyze water systems for evidence of social power relations by exploring questions about who makes decisions, who is well-served, and who is excluded.

### Required Texts:

- Sedlak, David. 2014. *Water 4.0: The Past, Present and Future of the World's Most Vital Resource* (New Haven: Yale University Press) (Available on line through the Hunter College library)
- All other materials will be available on line or provided through blackboard

## Course Format, Assignments and Grading

**Course Format** This is an in-person course. Attendance at all class sessions is mandatory. There may also be optional field trips scheduled outside of class time. Class sessions will include lectures by the instructors, guest lectures, films, whole and small group discussion, and student presentations. Thorough preparation and active participation is expected from all students.

**Assignments and Evaluation** Your grade in this course will be based on the following:

*Weekly reading reflection assignments (20%)*

Six reflection assignments in total; details for each will be provided with the weekly readings on blackboard.

*Thematic Water Supply presentations (20%)*

In the second half of the course, students will work in small groups to make presentations to the class about topical issues. Students will sign up for a topic earlier in the semester. Groups will work with course instructors to structure their presentations.

*Independent Research Project (20%)*

Students will work individually to write final papers, and make presentations to the class, about topical issues. Students may select topics that share themes with their group presentation, though this is not required.

*Midterm Exam (20%)*

This course will include an in-class mid-term exam.

*Participation (20%)*

Students are expected to participate in class presentations and discussions, as well as in small group activities. We realize that not all students come with the same level of comfort with public speaking, and that some students learn better by listening than talking; however we need to see that you are engaging with the material and with your classmates. There are many ways to show engagement: asking questions, making thoughtful comments, actively listening, or speaking up in small groups are all legitimate ways to participate.

## COURSE POLICIES

*Deadlines:*

Deadlines are firm. If you find you need more time for an assignment, please be in touch with the course instructors.

*Names and pronouns:*

All people have the right to be addressed and referred to in accordance with their personal identity. In this class, we will have the chance to indicate the name that we prefer to be called and, if we choose, to identify pronouns with which we would like to be addressed. In this class we will all do our best to address and refer to all students accordingly and support classmates in doing so as well.

*Academic Integrity:*

Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The college is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures. I may conduct internet searches or use plagiarism detection services such as Turnitin.com to assess your work.

ADA policy statement: In compliance with the ADA and with Section 504 of the Rehabilitation Act, Hunter is committed to ensuring educational access and accommodations for all its registered students. Hunter College's students with disabilities and medical conditions are encouraged to register with the Office of AccessABILITY for assistance and accommodation. For information and appointments contact the Office of AccessABILITY located in Room E1214B, or call 212-772-4857, or e-mail AccessABILITY@hunter.cuny.edu.

*Hunter College Policy on Sexual Misconduct:*

In compliance with the CUNY Policy on Sexual Misconduct, Hunter College reaffirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationships. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College.

- a. Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, or contacting the College's Public Safety Office (212-772-4444).
- b. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College's Title IX Campus Coordinator, Dean John Rose (jtrose@hunter.cuny.edu or 212-650-3262) or Colleen Barry (colleen.barry@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.

CUNY Policy on Sexual Misconduct Link: <http://www.cuny.edu/about/administration/offices/la/Policy-on-Sexual-Misconduct-12-1-14-with-links.pdf>?

THIS SCHEDULE IS TENTATIVE, SUBJECT TO CHANGE AS THE SEMESTER PROGRESSES

Session	Subject	Description	Deadlines
1/31 Session 1	Intro & course overview	<p>Introductions, course overview &amp; article discussion</p> <p>Lecture a. Intro to Climate and Hydrology for Urban Water Supply Systems</p> <p>Lecture b. Intro to Water Values, Paradigms &amp; Hydropolitics</p>	Read Vox article (link was sent on email, and available on blackboard announcements)
2/7 Session 2	Water 1.0 Water Supply Source and Conveyance	<p>Lecture a. Ancient water supply conveyance technology</p> <p>Lecture b: Notes on medieval supply water systems</p> <p>Small group activity: discussion &amp; presentations of ancient water supply systems from homework #1</p>	Homework #1
2/14 Session 3	Water 2.0: water supply treatment	<p>Lecture a: Source Regions for Modern Urban Water Supply Systems</p> <p>Lecture b: The Hydrosocial Cycle</p> <p>Documentary screening: <i>Water &amp; Power: A California Heist</i></p>	Homework #2
2/21		<i>No class meeting; Hunter on a Monday schedule</i>	Sign up for group presentation topic
2/28 Session 4	Water 2.0 cont'd	<p>Lecture a. Drinking water quality and treatment</p> <p>Lecture b: Introduction of governance, market, and collective governance paradigms + New York City water supply system history (part 1)</p> <p>Small group activity: discuss and share cases from homework #3</p> <p>Distribute home water test kits</p>	Homework #3
3/7 Session 5	Water 3.0 Waste Water Treatment	<p>Lecture a. Waste water environmental impact and treatment</p> <p>Lecture b: Evolution of environmental regulatory frameworks in US</p> <p>Home water test results discussion</p>	Homework #4

3/14 Session 6	Water 3.0 Global focus	Lecture a: Sustainability, Agenda 21, international efforts to improve water quality  Lecture b. Transboundary Conflicts  Small group activity: discussion & case presentations from homework #5	Homework #5
3/21 Session 7	Midterm Review & Values and Paradigms	Midterm Review  Lecture: Values and Paradigms  Movie discussion	Watch Milagro Beanfield War, be prepared to discuss
3/28 Session 8	Midterm week	Midterm (45 minutes)  Lecture: New York City Water Supply System History (part 2)  Documentary screening: Deep Water	Study for midterm
4/4 Session 9	Quantitative Analysis	brief overview of quantitative methods in urban water supply	Research paper topic proposal
4/11		<i>Spring recess – no class meeting</i>	
4/18 Session 10	Contemporary governance challenge: Western water in times of drought	Lecture a. Western Water History  Lecture b. Student presentation (Group 1) on the current drought, and the status of the Colorado River Compact	
4/25 Session 11	Contemporary governance challenge: Water quality in disinvested urban centers	Lecture a. Race and Politics of Drinking Water in Flint, MI  Lecture b. Student presentation (Group 2) on the ongoing drinking water crisis in Jackson, Mississippi	
5/2 Session 12	Contemporary waste water solutions	Lecture a. Waste Water Treatment and Biosolids in New York City (Guest lecture by Samantha MacBride)  Lecture b. Student presentation (Group 3) on decentralized waste recycling in San Francisco	
5/9 Session 13	Contemporary urban flooding solutions	Lecture a. NYC water supply system history (Part 3) (Guest lecture by Alan Cohen)	

		Lecture b. Student presentation (group 4), case. TBD	
5/16 Session 14	Synthesis	Student research lightning presentations + Synthesis discussion & wrap up	Final papers due
5/23	finals week	TBD	