

SOCIOLOGY 173X WATER AND SANITATION JUSTICE: AN ONLINE UNIVERSITY OF CALIFORNIA COURSE

This online undergraduate course is suitable for majors in a wide range of disciplines - including Sociology, Geography, Environmental Studies, Politics, Economics, Anthropology - in the social sciences, in the Arts, Engineering, and the Humanities. It will explore the many manifestations of water and sanitation justice and injustice on multiple interlocking scales (i.e. local, national, transnational) while illustrating analytical ideas connecting to a range of social processes including urbanization and infrastructure development, deprivation and exclusion, privatization of land and water, and claims for human rights. Students will learn from a range of cases in the global south and the global north, and use key technical and social concepts to address rights, equity, and justice with respect to water and sanitation. This unique course was developed by an interdisciplinary team of scholars with varying methodological and place-based expertise. Each week was designed, and will be taught, by a different team member. Some weeks have multiple short readings that give different dimensions of the week's theme (e.g. newspaper articles) while other weeks have fewer academic papers. This diverse approach will acquaint you with theoretical *and* practical knowledge about water and sanitation justice.

Course Development Team:

Dr. Ben Crow, University of California-Santa Cruz, <https://bcrow.sites.ucsc.edu>

Dr. Isha Ray, University of California-Berkeley, <https://erg.berkeley.edu/people/ray-isha>

Dr. Carolina Balazs, University of California-Berkeley, <http://www.switzernetwork.org/users/carolina-balazs>

Kirsten Rudestam, University of California-Santa Cruz, <https://critical-sustainabilities.ucsc.edu/kristen-rudestam>

Abigail Brown, University of California-Santa Cruz, <http://www.abigailbrown.net>

Instructor: Dr. Ben Crow, Professor

Office Hours: Mondays 1pm to 2:30; Thursdays 9:30am to 11am and by appointment* at <https://ucsc.zoom.us/j/246610417>

Email: bencrow@ucsc.edu

Teaching Assistant: Kirsten Rudestam, PhD Candidate

Office Hours: Tuesdays 9am to 11:00 and by appointment* at <https://ucsc.zoom.us/j/270345116>

Email: krudesta@ucsc.edu

Teaching Assistant: Abigail Brown, PhD Student

Office Hours: Thursdays 9am to 11:00 and by appointment* at <https://ucsc.zoom.us/j/163592243>

Email: ablbrown@ucsc.edu

* Office hours will be held online in Zoom. Students will meet with their section lead for office hours (either Professor Crow, Kirsten, or Abigail). Some section leads require appointments for office hours. Please make sure to check Canvas to access the Zoom link and to schedule appointments for your section's office hours

COURSE OVERVIEW

Week 1: Water and Sanitation Justice

Week 2: Governing Water

Week 3: Water Justice in the Global North and South

Week 4: Sanitation Justice and Injustice

Week 5: Human Rights for Water and Sanitation

Week 6: Urban Water and Sanitation
Week 7: Climate Justice
Week 8: Irrigation and Water Justice
Week 9: Water, Sanitation, and Poverty
Week 10: Moving Toward Justice

ASSIGNMENTS AND EVALUATION

Course Components

The course content for each week comprises lectures, videos, readings, a quiz and either a portfolio essay (weeks 1, 3, 5, and 7) or a forum post (weeks 2, 4, 6, and 8). All course materials are available in Canvas (login.uconline.edu). You must complete each item for a week before moving on to the next week.

Grading

1. Bi-weekly portfolio essays (two pages) (revised for final portfolio in week 10) – 40% of grade
2. Bi-weekly forum posts (200 to 250 words) – 30% of grade
3. Weekly quizzes – 30% of grade

Technology Requirements

For this class you will need:

- A reliable computer
- A reliable internet connection
- A webcam and a microphone (built-in or peripheral)
- A modern web browser (Firefox, Safari, or Chrome)
- Word or similar word processing software

ACADEMIC HONESTY

You need to avoid presenting other people's work (e.g. on websites) as your own. The university takes a dim view of plagiarism. It leads to hassle, failing grades, reports, remedial work and even suspension. We will be cross-checking writing assignments to ensure plagiarism is not occurring. This document gives information on how to avoid plagiarism:

<http://library.ucsc.edu/science/instruction/CitingSources.pdf>.

ACCOMMODATIONS

UC Santa Cruz is committed to creating an academic environment that supports its diverse student body. If you are a student with a disability who requires accommodations to achieve equal access in this course, please submit your Accommodation Authorization Letter from the Disability Resource Center (DRC) to me privately during my office hours or by appointment, preferably within the first two weeks of the quarter. At this time, I would also like us to discuss ways we can ensure your full participation in the course. I encourage all students who may benefit from learning more about DRC services to contact DRC by phone at 831-459-2089 or by email at drc@ucsc.edu.

COURSE SCHEDULE

1. Water and Sanitation Justice - 4/3/17

Lecturer: Ben Crow

Why do we want justice? Why should water and sanitation access be considered questions of justice? What ideas of justice are most useful in consideration of water and sanitation? This week introduces a discussion of ideas of justice, a *declaration* about water justice, and how ideas of justice may relate to water and struggles over water.

- Lectures: 1: Technology, Society and Water 2: Approaches to Justice, 3: Water Use and Justice, 4: Understanding Struggles for Water Justice
- Video: Al Jazeera [Global Water Scarcity](#)
- Activities: Portfolio Essay 1, Wk 1 Quiz

Readings:

- Sen, A. (2008). "The idea of justice." *Journal of Human Development and Capabilities* 9 (3, November): 331-342.
- Santa Cruz Declaration on the Global Water Crisis. (2014). *Water International*, 39:2, 246-261.
- Zwarteveen, M. and R. Boelens (2014). "Defining, researching and struggling for water justice: some conceptual building blocks for research and action." *Water International* 39:2, 143-158.

2. Governing Water - 4/10/17

Lecturer: Kirsten Rudestam

This week introduces contemporary modes of water governance. We look at mainstream and grassroots approaches such as Integrated Water Resources Management (IWRM) and Environmental Justice (EJ). We utilize case studies to better understand these divergent management practices and ways of understanding and working with water. We also become familiar with some of the idioms that geographers, sociologists and others have used to describe the movement of water through human-modified landscapes including the hydrosocial cycle, the network, and the waterscape.

- Lectures: 1: Mainstream Paradigms for Managing Water, 2: Integrated Water Resource Management, 3: Seeking Justice from Below
- Videos: Interview with Peter Mollinga, [Water Matters](#), David Schlosberg at UCSC
- Activities: Forum post, quiz

Readings:

- Brown, Langridge & Rudestam. (2016). Coming to the table: collaborative governance and groundwater decision-making in coastal California, *Journal of Environmental Planning and Management*.
- Morinville and Harris. (2013). "Participation's limits: tracing the contours of participatory water governance in Accra, Ghana." From *Contemporary Water Governance in the Global South: Scarcity, marketization and participation*. Ed. Harris, Goldin, and Sneddon: 216-231.
- Biswas, A. K. (2004). "Integrated water resources management: a reassessment". *Water International* 29(2): 248-256.
- Agyeman et al. (2016). "Trends and Directions in EJ: From Inequity to Everyday Life, Community, and Just Sustainabilities." *Annual Review of Environmental Resources*.
- Perreault, T.; Wraight, S. and Perreault, M. (2012). Environmental injustice in the Onondaga lake waterscape, New York State, USA *Water Alternatives* 5(2): 485-506.

3. Water Justice in the Global North and South - 4/17/17

Lecturer: Dr. Carolina Balazs

Across the globe, communities struggle to access clean water and adequate sanitation. In many instances

inequities arise in the ability of communities to obtain these basic resources. This week, we explore these topics by looking at water justice issues across the global south (e.g. southeast Asia, Latin America) and the global north (e.g. United States).

- Lectures: 1: Water Access and Injustice Overview, 2: Drinking Water Disparities Framework Animation, 3: Water Access in the Global South, 4: Water Injustice in the Global North, 5: The Drinking Water Disparities Framework Revisited, 6: Comparing North & South
- Videos: [Water and Justice: Peri-urban pathways in Delhi](#), [Water contamination in the Central Valley: Switzer Foundation](#)
- Activities: Portfolio essay, quiz

Readings:

- Taylor, Alan. (March 16, 2016). "[The Daily Struggle for Clean Water](#)." The Atlantic Monthly.
- Mehta, L., et al. (2014). "Global environmental justice and the right to water: The case of peri-urban Cochabamba and Delhi." *Geoforum* 54 (2014) 158–166.
- Semuels, Alana. (March 3, 2016). "[The American Neighborhoods Without Water, Sewers, or Building Codes](#)." The Atlantic Monthly.
- Groner, Anya. (December 30, 2014). "[The Politics of Drinking Water](#)." The Atlantic Monthly
- Balazs & Ray. (2014). The Drinking Water Disparities Framework: On the Origins and Persistence of Inequities in Exposure
- Ranganathan, M. and C. Balazs (2015). "Water marginalization at the urban fringe: environmental justice and urban political ecology across the North–South divide." *Urban Geography* 36 (3): 403-423.

4. Sanitation Justice and Injustice - 4/24/17

Lecturer: Dr. Isha Ray

This week provides an overview of sanitation justice and injustice. We will cover: why poor-quality sanitation is a public and environmental health problem; what the SDGs have to say about sanitation for all; low-cost sanitation technologies; gender equality and sanitation; sanitation workers and justice; and innovative ways ahead for encouraging households to accept and pay for sanitation, waste removal and treatment, and a range of ways to pay for sanitation services.

- Lectures: 1: Sanitation, Health, and Justice, 2: Low-cost Sanitation and Financing Sanitation Access, 3: Sanitation Workers and Sanitation Justice, 4: Innovative ongoing efforts: how do they serve sanitation justice?
- Videos: [Gender Equality and Sanitation](#) By Isha Ray TEDx, [What is sanitation?](#) By Sharada Prasad and Rachel Sklar, [Community Led Total Sanitation in Ethiopia](#), [David Kuria and Iko Toilets](#), [Meet Mr. Toilet](#)
- Activities: Forum post, quiz

Readings:

- Penner, Barbara. (2012). "We shall deal here with humble things." *Places Journal*.
- Duncan Mara, Jon Lane, Beth Scott, David Trouba. (2010). Sanitation and Health. *PLoS Medicine*, Volume 7, Issue 11.
- WASHCost InfoSheet 2. (October 2012). "[The Cost of Sustaining Sanitation Services](#)."
- Burt, Zachary, Kara Nelson, Isha Ray. (March 2016). "Towards Gender Equality through Sanitation Access." UN Women Discussion Paper.
- Chambers, Robert. (2011) The Guardian, Poverty Blog. "[Sanitation MDG is badly off track, but](#)

[a community led approach could fix that.](#)”

- Chatterjee, Liz. (2011). The Guardian, Poverty Blog. “[Time to acknowledge the dirty truth behind community-led sanitation.](#)”
- Bill and Melinda Gates Foundation. Strategy Overview of Reinvent-the-Toilet (check out the [main page](#) and a couple of winning examples).
- Mimi Jenkins and Beth Scott. (2007). Behavioral indicators of household decision-making and demand for sanitation and potential gains from social marketing in Ghana. *Social Science and Medicine*, 64: 2427-2442.

5. Human Rights for Water and Sanitation - 5/1/17

Lecturer: Abigail Brown

Do human rights to water and sanitation equal water and sanitation justice? Despite being previously assumed as embedded in other basic rights, water and sanitation were not officially acknowledged in international human rights conventions until 2010. This week outlines the evolution of the human rights to water and sanitation and critically examines linkages between human rights discourse and water and sanitation justice.

- Lectures: 1: Introduction to Human Rights to Water and Sanitation, 2: Movements for Human Rights to Water and Sanitation, 3: Critiques and Alternatives
- Videos: [Thirsty for Justice: The Struggle for the Human Right to Water](#), [Rights versus Commons](#) by Karen Bakker
- Activities: Portfolio essay, quiz

Readings:

- Murthy, Sharmila L. (2013). “The Human Right(s) to Water and Sanitation: History, Meaning and the Controversy Over Privatization.” SSRN Scholarly Paper. Rochester, NY: Social Science Research Network. PAGES 89-109. PAGES 117-147.
- Short [timeline on PBS Frontline World](#) on Cochabamba, Bolivia.
- “[Water Justice City Profile: Cochabamba](#)” by University College London. PAGES 6-13.
- Sultana, Farhana, and Alex Loftus. (2015). “The Human Right to Water: Critiques and Condition of Possibility.” *Wiley Interdisciplinary Reviews: Water* 2, no. 2.

6. Urban Water and Sanitation - 5/8/17

Lecturer: Kirsten Rudestam

We narrow our attention to one particular site this week - the urban environment. In examining urban water and sanitation networks, we look at how the plumbing of cities contributes to contemporary deprivations of access for inhabitants. We look specifically at inequality with respect to gender. We also use contemporary case studies to examine how urban water systems vary worldwide.

- Lectures: 1: Overview of Urban Water and Sanitation Infrastructure, 2: Modern Urban Water Systems Histories, 3: Urban Water and Sanitation, Gender and Poverty, 4: Ways Forward
- Videos: [Cadillac Desert](#), Interview with Ben Crow, Interview with Betty Okero, [Translocal learning for water justice](#), [Water and Sanitation for the Urban Poor](#)
- Activities: Forum post, quiz

Readings:

- “Urban Sanitation.” Lüthi, C., Panesar, A., Schütze, T., Norström, A., McConville, J., Parkinson, J., Saywell, D., Ingle, R. (2011). Sustainable sanitation in cities: a framework for action.

Sustainable Sanitation Alliance (SuSanA), International Forum on Urbanism (IFoU), Papiroz Publishing House. CHAPTER 2

- Rural Community Assistance Partnership. "[Still Living without the Basics](#)." PAGES 3-17.
- Swyngedouw, Erik. (1997). Power, Nature and the city. The conquest of water and the political ecology of urbanization in Guayaquil, Ecuador: 1880-1990. *Environment and planning A*, 29 (311-332).
- Brown, Abigail. [FAQ on water and gender](#). Water for the Ages.
- Truelove, Y. (2011). "(Re-)Conceptualizing water inequality in Delhi, India through a feminist political ecology framework." *Geoforum* 42: 143-152.
- Teutsch, Betsy. (May 13, 2014). "[The Toilet Malls of Nairobi](#)." *The Atlantic Monthly*.

7. Climate Justice - 5/15/17

Lecturer: Abigail Brown

Climate change is an overarching concern of the twenty-first century. Humans, animals, and landscapes can be impacted by climate change in unequal and unjust ways. Such inequalities are apparent when looking at climate change, water, and sanitation. We will evaluate linkages between environmental and climate justice movements, and also examine distributional and procedural aspects of climate justice through two case studies.

- Lectures: 1: Climate Change, Water, and Sanitation, 2: Environmental Justice and Climate Justice
- Videos: Navroz Dubash and Distributional Justice in Climate Change, Tracy Perkins and Procedural Justice in Climate Change
- Activities: Portfolio essay, quiz

Readings:

- Intergovernmental Panel on Climate Change, and Working Group II. (2008). "[Climate Change and Water](#)." EXECUTIVE SUMMARY.
- de Albuquerque, Catarina. "[Sanitation and Climate Change: The Connection That Needs to Be Made](#)." *The Huffington Post*.
- Schlosberg, David. Collins, Lisette. (2014). "From environmental to climate justice climate change and the discourse of environmental justice." *Wiley Interdisciplinary Reviews*. Wiley Online Library. PAGES 359-367 and CONCLUSION.
- Worland, Justin. (2016). "[How Climate Change Unfairly Burdens Poor Countries](#)." *Time*.
- Dubash, Navroz. (2015). "[Why India has a Point at the Paris Climate Talks](#)." *Time*.
- Perkins, Tracy and Aaron Soto-Karlin. (Forthcoming) *Climate Conflict from California to Latin America: Connecting Global Policies to Local Realities*. In *Situating Sustainability: Sciences/Humanities/Societies, Scales and Social Justice* edited by J. Sze. New York: NYU Press.

8. Irrigation and Water Justice - 5/22/17

Lecturer: Dr. Isha Ray

This week provides an overview of irrigation and equity. Irrigation is the single biggest reason for freshwater withdrawals around the world. We will cover: the need for irrigation around the world, projections of water demand for irrigation in the future, benefits and controversies around irrigation practices; the inherently political nature of water allocation; "Big Irrigation" and water justice; low cost irrigation options for smaller farmers; irrigation through multiple use systems; and irrigation through participation.

- Lectures: 1: Irrigation Benefits, Costs, Controversies, 2: “Big” Irrigation and water justice, 3: “Small” Irrigation technologies (and justice), 4: Participatory Irrigation Management
- Videos: [Is the Three Gorges a Ticking Time Bomb?](#), [The Miracle Water Village](#)
- Activities: Forum post, quiz

Readings:

- Sandra Postel’s classic work: *Pillar of Sand*. EXCERPTS.
- McCully, Patrick. (2001). *Silenced Rivers*. READ The Prehistory of the World Commission on Dams (p xix) to Findings (p xxxii).
- Attwood, Donald. (2005). Big is Ugly? How Large-Scale Institutions Prevent Famine in Western India. *World Development*.
- Postel, Sandra. (2012). [The power of a radically affordable irrigation pump](#). *National Geographic Voices*
- [An entrepreneur creating chances at a better life](#). (September 26, 2011) *New York Times*
- von Koppen, Barbara et al. (2006). [Multiple use water services to advance the millennium development goals](#). International Water Management Institute, Research Report 98, pp 5 – 25.
- Ostrom, Elinor & Roy Gardner. (1993). Coping with asymmetries in the commons: self-governing irrigation systems can work. *Journal of Economic Perspectives*, 7: 93 – 112.
- Zwarteveen, Margreet. (1997). Water: from basic need to commodity: A discussion of gender and water rights in the context of irrigation. *World Development* 25: 1335 - 1349.

9. Water, Sanitation, and Poverty - 5/29/17

Lecturer: Ben Crow

As we have seen throughout this class, there are substantial connections between getting water and using sanitation and the making of poverty, wealth and inequality. The control of irrigation water, for example, may enable some to get rich. Or everyday access to sanitation and water may reproduce poverty, indignity, powerlessness and an allocation of homemaker’s time precluding more valued activities. This week looks at these connections between water, sanitation and poverty.

- Lectures: 1: Water, Sanitation, and Poverty, 2: Delhi Case Study, 3: Capability Analysis, Water, and Development
- Videos: Interview
- Activities: Portfolio Essay Review, Quiz

Readings:

- Crow and Swallow (2017) Water and poverty: pathways of escape and descent. *Oxford Handbook on Water Politics*.
- Mehta, L. (2014). "Water and human development." *World Development*, Vol. 59, pp. 59–69, 2014.
- van Houweling, E., et al. (2012). "The Role of Productive Water Use in Women's Livelihoods: Evidence from Rural Senegal." *Water Alternatives* 5(3).

10. Moving Toward Justice - 6/5/15

Panelists: Dr. Ben Crow, Dr. Isha Ray, Dr. Carolina Balazs, Kirsten Rudestam, Abigail Brown

This final week we will review concepts covered throughout the course and the panel will tackle some of the most relevant questions that you send in.

- Lectures: Live Panel with Course Creators
- Videos: None

- Activities: Portfolio Essay Revisions

11. Finals Week - 6/12/17

All portfolio essays need to be uploaded to Canvas.