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 such as sociology, geography, anthropology, environmental studies, politics, economics, and engineering. It will explore the many manifestations of water and sanitation justice and injustice on interlocking scales (i.e. local, national, transnational) while illustrating analytical ideas connecting to a range of social processes including claims for human rights, deprivation and exclusion, urbanization and infrastructure development, and privatization of land and water. Students will learn from various case studies in high-income and low-income countries and use key technical and social concepts to examine rights, equity, and justice with respect to water and sanitation. This unique course was developed by an interdisciplinary team of scholars with varying methodological (e.g. sociology, economics, politics) and place-based expertise. Each week was designed, and will be taught, by a different team member. Some weeks have multiple short readings that provide different dimensions of the theme (e.g. media articles) while other weeks have more academic papers. This diverse approach will acquaint you with practical and theoretical 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
Dr. Kirsten Rudestam, University of California-Santa Cruz, https://critical-sustainabilities.ucsc.edu
Abigail Brown, University of California-Santa Cruz, http://www.abigailbrown.me

Co-instructor: Kirsten Rudestam, PhD
Email: krudesta@ucsc.edu
Office Hours: by appointment at https://ucsc.zoom.us/j/6452103920

Co-instructor: Abigail Brown, M.A.
Email: ablbrown@ucsc.edu
Office Hours: by appointment at https://ucsc.zoom.us/j/6791071197

The course will be located on Canvas: canvas.ucsc.edu. Please check Canvas to make appointments for instructor and teaching assistant office hours.

COURSE OVERVIEW

Please note: This course was initially developed for a ten-week quarter. We have reduced the readings to make the workload more feasible for a five-week summer course. We are not able, however, to edit the lectures. There may be times when faculty members refer to readings that are not mandatory for class. You are not responsible for these readings, but they are included as optional.

Week 1- Module 1: Water/Sanitation Justice *and* Module 2: Governing Water
Week 2 - Module 3: Water Justice in the Global South/North *and* Module 4: Sanitation Justice
Week 3 - Module 5: Human Rights for Water/Sanitation *and* Module 6: Urban Water/Sanitation
Week 4 - Module 7: Climate Justice *and* Module 8: Irrigation and Water Justice
Week 5 - Module 9: Water, Sanitation and Poverty *and* Module 10: Moving Towards Justice

ASSIGNMENTS AND EVALUATION

Online Coursework

This online course is held using Canvas. It is a ***fast-paced*** and ***intensive*** course during the short summer session. Please allocate **30 hours each week** to complete all components (e.g. readings, media, and assignments). You will be required to finish an Introduction module before starting course materials. It will be open a week before the course starts. It will provide more information about working on Canvas and details about weekly assignments. Please complete this module as soon as possible. Here is the Canvas student guide for more information: https://community.canvaslms.com/docs/DOC-10701. If you have problems using Canvas this quarter, please contact them directly at: canvas.help@ucsc.edu.

Course Components

Course content for each week includes lectures, videos, readings, a quiz, portfolio essays, and discussion forum posts. You will revise a portfolio essay for the final assignment. All materials are available on Canvas. You will be required to complete all items in a week before being allowed to progress in the course. You will need to complete the materials in a specific sequence outlined in the overview section at the beginning of each module.

Reading

All reading assignments are available on Canvas unless otherwise specified. This course is reading intensive. You need to complete assigned readings to participate in course components. We have created "Reading Guides" for particularly challenging articles. You will see these linked in Canvas. You can read these before finishing the readings to become more familiar with the author's main points.

Grading

1. Weekly portfolio essays (500-800 words), peer review, final essay (three-five pages) – 40%
2. Weekly forum posts (200-250 words) – 30%
3. Weekly quizzes – 30%

* All late assignments will be penalized 5 points (half a letter grade) each day.

Weekly portfolio essays: Each week you will respond to a prompt related to that week's readings. You will select a real-world case and apply concepts from the class. You may use the same case more than once, but please adhere to the specific instructions for each assignment. Each entry should be 500-800 words, double-spaced in Times 12-point font, and consistent with American Sociological Association (ASA) style. Each essay should include 3-5 references to sources you have used. These will be due on Sunday at 8 pm.

Weekly discussion forum posts: Each week you write on the online discussion forum. Every discussion will begin with a prompt connected to the week's material. You should engage on the board by initiating posts and responding to the posts of others in ways that advance the conversation. You will be required to post *at least* **two** original posts. The first will address the prompt and should be 200-250 words. The second will respond to a classmate.

Quizzes: Each week you will complete a quiz on the week's materials. Please start earlier in the week

because you can take the quiz multiple times. Your highest score will be recorded.

Peer review: You will choose one essay from your previous submissions to expand upon for your final assignment. Please upload this original essay to Canvas, and then provide comments on three essays of your classmates. Your comments will help them improve their content for final revision.

Final portfolio essay: You will be asked to expand upon your peer review essay for the final assignment. You will need to increase the length to three-five pages and improve the content based upon comprehensive learning from the course and comments from classmates and instructors.

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 must avoid presenting other people's work (e.g. on websites) as your own. This 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 – SESSION 2 (July 29 – August 30)

WEEK ONE*

*The Introduction Module must be completed before starting the first module.

1. **Water and Sanitation Justice** – July 29, 2019
   Lecturer: Dr. Ben Crow

Why do we want justice, equity or fairness? What do these words mean? How do they relate to water and sanitation? This week introduces various ideas of justice (e.g. environmental justice, food justice,

climate justice, science and justice, and water justice). We will discuss how ideas of justice have been used to understand water and sanitation inequalities. We will explore how water and sanitation injustice is associated with differences in wealth and health, power and dignity, gender and ethnicity.

- Lectures: 1: Technology, Society, and Water, 2: Approaches to Water Justice, 3: Water Use and Justice, 4: Understanding Struggles for Water Justice
- Videos: Global Water Scarcity, Contaminated Drinking Water in California's Central Valley
- Activities: Introduction forum, portfolio essay, quiz

Readings:
- Sen, A. (2008). "The idea of justice." Journal of Human Development and Capabilities 9 (3, November): 331-342.
- 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.

Optional Readings:
- Santa Cruz Declaration on the Global Water Crisis. (2014). *Water International*, 39:2, 246-261.

2. **Governing Water** – August 1, 2019
   Lecturer: Kirsten Rudestam

Mainstream and grassroots approaches such as Integrated Water Resources Management (IWRM) and Environmental Justice (EJ), respectively, are strongly related to contemporary modes of water governance. We will utilize case studies to better understand these divergent management practices and ways of comprehending and working with water. We will 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: Water Governance, 2: Integrated Water Resource Management, 3: Environmental Justice
- Videos: Environmental Justice in Everyday Life
- Activities: Forum post, quiz

Readings:
- Brown, Langridge, and 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.

Optional Readings:
- Agyeman et al. (2016). "Trends and Directions in EJ: From Inequity to Everyday Life, Community, and Just Sustainabilities." Annual Review of Environmental Resources.321-40.
- Biswas, A. K. (2004). "Integrated water resources management: a reassessment". Water International 29(2): 248–256.
- Perreault, T.; Wright, S. and Perreault, M. (2012). Environmental injustice in the Onondaga lake waterscape, New York State, USA Water Alternatives 5(2): 485-506.

WEEK TWO

3. **Water Justice in the Global South and North** – August 5, 2019
   Lecturer: Dr. Carolina Balazs

Communities struggle to access clean water and adequate sanitation across the globe. We will explore these topics by looking at water justice issues across the global south (i.e. southeast Asia, Latin America) and global north (i.e. United States). We will pay attention to unique challenges in specific locales and consider commonalities and differences across geographic space. We will use a water justice framework to examine disparate locations and consider the utility and limitations of such frameworks.

- Lectures: 1: The Nature of Access and Injustice, 2: Sociopolitical Factors in Water Access, 3: Water Injustice in the Global South, 4: Water Injustice in the Global North, 5: The Drinking Water Disparities, 6: Bridging the South and North
- Videos: Periurban Pathways in Delhi
- Activities: Portfolio essay, quiz

Readings:
- 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.
- Ranganathan, Malini, and Carolina Balazs. (2015). "Water Marginalization at the Urban Fringe."

Optional Readings:
- Balazs & Ray. (2014). The Drinking Water Disparities Framework: On the Origins and Persistence of Inequities in Exposure
- Robinson, Jennifer. (2011). "Cities in a World of Cities"
- McFarlane, Colin. (2010). "The Comparative City."
- "The Daily Struggle for Clean Water." (March 16, 2016 The Atlantic Monthly.
- "The American Neighborhoods Without Water, Sewers, or Building Codes." (March 3, 2016). The Atlantic Monthly.
- "The Politics of Drinking Water." (December 30, 2014). The Atlantic Monthly

4. **Sanitation Justice and Injustice** – August 8, 2019
   Lecturer: Dr. Isha Ray

Sanitation is also an issue of justice and injustice. It receives much less attention than water yet more people lack safely managed sanitation (4.5 billion) than water (2.1 billion). We will cover: why poor-quality sanitation is a public and environmental health concern; what the Sustainable Development Goals 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.

- Lectures: 1: Sanitation, health, and justice, 2: Low-cost sanitation and financing, 3: Sanitation workers, 4: Innovative efforts in sanitation
- Videos: Gender equality: A view from the loo, What is sanitation?, Teacher-Facilitated Community-Led Total Sanitation, Iko Toilets, Meet Mr. Toilet
- Activities: Forum post, quiz

Readings:
- 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).
- WASHCost InfoSheet. (October 2012). "The Cost of Sustaining Sanitation Services."

Optional 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.
- Jenkins, Mimi 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.

WEEK THREE

5. **Human Rights for Water and Sanitation** – August 12, 2019
   Lecturer: Abigail Brown

Human rights are a rallying call for people worldwide seeking better conditions. Yet 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: Human Right(s) to Water and Sanitation, 2: Human Right to Water and Sanitation Struggles, 3: Critiques and Alternatives
- Videos: Thirsty for Justice, Rights versus Commons
- Activities: Portfolio essay, quiz

Readings:

- PAGES 89-109 and 117-147. 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 6-13. "Water Justice City Profile: Cochabamba" by University College London.
- Sultana, Farhana, and Alex Loftus. (2015). "The Human Right to Water: Critiques and Condition of Possibility." Wiley Interdisciplinary Reviews: Water 2, no. 2.
- Short timeline on PBS Frontline World on Cochabamba, Bolivia.

6. **Urban Water and Sanitation** – August 15, 2019
   Lecturer: Kirsten Rudestam

Built environments shape the way in which people relate to their local waters just as local waters inform the shaping of built environments. We will narrow our attention to one specific type of place this week - urban spaces. The plumbing of cities contributes to contemporary deprivations of access for inhabitants. We will examine the development of urban water and infrastructure over time and focus on different marginalized communities in this context with special attention to gender.

- Lectures: 1: Urban Water and Sanitation, 2: Modern Urban Water Systems, 3: Gender and

Poverty, 4: Ways Forward
- Videos: Translocal learning for water justice, Water and sanitation for the Urban Poor
- Activities: Forum post, quiz

Readings:
- 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. (11 pages)
- PAGES 3-17. Rural Community Assistance Partnership. "Still Living without the Basics."

Optional Readings:
- 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).
- CHAPTER TWO. 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

WEEK FOUR

7. **Climate Justice** – August 19, 2019
   Lecturer: Abigail Brown

Climate change is an overarching concern of the twenty-first century. Humans, animals, and landscapes are 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 examine distributional and procedural aspects of climate justice through two case studies.

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

Readings:
- PAGES 359-367 and CONCLUSION Schlosberg, David. Collins, Lisette. (2014).“From environmental to climate justice climate change and the discourse of environmental justice.” Wiley Interdisciplinary Reviews. Wiley Online Library.
- 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.

Optional Readings:
- EXECUTIVE SUMMARY Intergovernmental Panel on Climate Change and Working Group II. (2008). “Climate Change and Water.”
- de Albuquerque, Catarina. “Sanitation and Climate Change: The Connection That Needs to Be Made.” The Huffington Post.
- Worland, Justin. (2016). “How Climate Change Unfairly Burdens Poor Countries.” Time.

8. **Irrigation and Water Justice** – August 22, 2019
   Lecturer: Dr. Isha Ray

Irrigation is the single biggest reason for freshwater withdrawals around the world. This week provides an overview of irrigation and equity. 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: Justice and "Big Water", 2: Big Dams and Water Justice, 3: Is Participatory Irrigation Management More Just?
- Videos: Is the Three Gorges a Ticking Time Bomb?, The Miracle Water Village, Barbara van Koppen
- Activities: Forum post, quiz

Readings:

- 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*
- 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.

Optional Readings:

- EXCERPTS McCully, Patrick. (2001). *Silenced Rivers*. Read from The Prehistory of the World Commission on Dams (p xix) to Findings (p xxxii).
- Ostrom, Elinor and Roy Gardner. (1993). Coping with asymmetries in the commons: self-governing irrigation systems can work. *Journal of Economic Perspectives*, 7: 93 – 112.
- Wade, Robert. (1987). "The Management of Common Property Resources."
- 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.

WEEK FIVE

9. **Water, Sanitation, and Poverty** – August 26, 2018
   Lecturer: Dr. Ben Crow

There are substantial connections between getting water and using sanitation, the governance of water and 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 will examine links between water utilization and poverty and possible solutions moving forward.

- Lectures: 1: Water, Sanitation, and Poverty, 2: Broader Sociological Dimensions, 3: Case Study of Water Law and First Nations
- Videos: Interview with Cammille Pannau, Conversation with Isha Ray and Ben Crow
- Activities: Peer Review, Quiz

Readings:

- Crow and Swallow (2017). Water and poverty: pathways of escape and descent. *Oxford*

Handbook on Water Politics.

Optional Readings:

- Crow, Ben (forthcoming). "Urban Water and Sanitation Justice."
- van Houweling, E., et al. (2012). "The Role of Productive Water Use in Women's Livelihoods: Evidence from Rural Senegal." Water Alternatives 5(3).
- Mehta, L. (2014). "Water and human development." World Development, Vol. 59, 2014.
- "The Everywhere of Sanitation."

10. Moving Toward Justice – August 29, 2019
Panelists: Dr. Ben Crow, Dr. Isha Ray, Dr. Carolina Balazs, Kirsten Rudestam, Abigail Brown

We host a special panel discussion with the course creators to review concepts covered during the course, consider how water and sanitation justice might be advanced, and you will be able to present any lingering questions to them.

- Lectures: Panel with Course Creators
- Videos: None
- Activities: Final Essay

Optional Reading:

- Sherwood, Yvonne. (2019). "The Political Binds of Oil Versus Tribes." Open Rivers Journal.

11. Finals Week

All portfolio essays need to be uploaded to Canvas. Please check Canvas for the deadline.

Important 2019 Deadlines:

Session 1:
Drop: Monday, July 1
Request for "W": Friday, July 12

Session 2:
Drop: Monday, August 5
Request for "W": Friday, August 16

8-Week:
Drop: Monday, July 8
Request for "W": Friday, July 26

10-Week:
Drop: Monday, July 8
Request for "W": Friday, July 26

Neither Summer Session nor instructors drop students for non-attendance or non-payment. Students must drop themselves. Dropping results in full tuition reversal/refund. Withdraw posts a W for the grade and full tuition is charged (no refund).

For all dates and deadlines, including 'change of grade option' (P/NP) and grades due, here is the

summer academic calendar: https://summer.ucsc.edu/studentlife/index.html

For questions about dropping, requesting a W grade for a course, or withdrawing from the summer quarter, email summer@ucsc.edu.

DRC Accommodations:
The Disability Resources Center reduces barriers to inclusion and full participation for students with disabilities by providing support to individually determine reasonable academic accommodations. If you have questions or concerns about exam accommodations or any other disability-related matter, please contact the DRC office, located in Hahn 125 or at 831-459-2089 or drc@ucsc.edu.

Academic Dishonesty

Academic integrity is the cornerstone of a university education. Academic dishonesty diminishes the university as an institution and all members of the university community. It tarnishes the value of a UCSC degree.
All members of the UCSC community have an explicit responsibility to foster an environment of trust, honesty, fairness, respect, and responsibility. All members of the university community are expected to present as their original work only that which is truly their own. All members of the community are expected to report observed instances of cheating, plagiarism, and other forms of academic dishonesty in order to ensure that the integrity of scholarship is valued and preserved at UCSC.
In the event a student is found in violation of the UCSC Academic Integrity policy, he or she may face both academic sanctions imposed by the instructor of record and disciplinary sanctions imposed either by the provost of his or her college or the Academic Tribunal convened to hear the case. Violations of the Academic Integrity policy can result in dismissal from the university and a permanent notation on a student's transcript.
For the full policy and disciplinary procedures on academic dishonesty, students and instructors should refer to the Academic Integrity page at the Division of Undergraduate Education.

Title IX:
The university cherishes the free and open exchange of ideas and enlargement of knowledge. To maintain this freedom and openness requires objectivity, mutual trust, and confidence; it requires the absence of coercion, intimidation, or exploitation. The principal responsibility for maintaining these conditions must rest upon those members of the university community who exercise most authority and leadership: faculty, managers, and supervisors.

The university has therefore instituted a number of measures designed to protect its community from sex discrimination, sexual harassment, sexual violence, and other related prohibited conduct. Information about the Title IX Office, the online reporting link, applicable campus resources, reporting responsibilities, the UC Policy on Sexual Violence and Sexual Harassment and the UC Santa Cruz Procedures for Reporting and Responding to Reports of Sexual Violence and Sexual Harassment can be found at titleix.ucsc.edu.

The Title IX/Sexual Harassment Office is located at 105 Kerr Hall. In addition to the online reporting option, you can contact the Title IX Office by calling 831-459-2462.