Water and Sanitation Justice, ENERES W174

3 semester credits

Dedication

With great sadness, we must report that Professor Ben Crow, one of the moving spirits behind this course, passed away in the Spring of 2019. He was a wonderful scholar, passionate advocate of water justice, and dedicated teacher and mentor. On behalf of all four lecturers (Carolina Balazs, Abigail Brown, Kirsten Rudestam and Isha Ray), we dedicate this course to his memory. We hope that it inspires students as he always did.

Course Description

This course 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. We will look at 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.

Prerequisites

There are no prior course requirements.

Course Goals

This course will acquaint you with theoretical *and* practical knowledge about water and sanitation justice.

After successfully completing this course, you will be able to

- Explain key issues of water and sanitation justice
- Understand impacts of water and sanitation injustice on quality of life
- Identify factors influencing water and sanitation justice and injustice
- Compare issues at local to global scales
- Analyze water and sanitation through a variety of disciplinary perspectives: Arts, Engineering, Humanities, and in the social sciences of Sociology, Geography, Environmental Studies, Politics, Economics, Anthropology
- Explain water and sanitation policy and governance historical examples, locally and globally

- Seriously consider strategies for addressing water and sanitation injustice

Instructor Information, Contact, Office Hours, & Communication

Course Instructor

Professor Isha Ray

isharay@berkeley.edu

Graduate Student Instructors (GSIs)

While the instructor will interact with the whole class and will oversee all activities and grading, as well as be available to resolve any issues that may arise, the GSI will be your main point of contact. Your GSI is responsible for assisting you directly with your questions about assignments and course requirements, as outlined in the Assignments and Calendar. The GSI will also facilitate ongoing discussion and interaction with you on major topics in each module.

- Yoshika Crider (ycrider@berkeley.edu)

Office Hours

The course instructor and GSIs will offer virtual office hours, when students can communicate real time (synchronously) using Zoom. One Zoom OH is mandatory (either with the GSI or with the instructor). While additional chats are optional they can be valuable for discussion, answering questions, and reviewing for the final essay.

OH for Prof Ray: Mondays | 2pm – 3pm (PDT)

OH for Yoshika Crider: Tuesdays | 10 – 11am (PDT)

The session will be for one hour. However, if no one shows up in the first 15 minutes, then that office hour will be cancelled.

Course Communication

Make sure to check the Course Mail for messages from the instructor. You can access course email within bCourses by clicking on the Inbox link or choose to have your course mail forwarded to your personal email account or your phone.

We will try our best to reply to your messages within 24 hours. Please refrain from last-minute emails, as we cannot guarantee an immediate response. Do not expect

an email response over the weekend. Please only write emails of a professional nature, and limit them to shorter questions which may be answered in a sentence or two. So that we can quickly recognize your email as course-related, please include "ENERES W174" in the email subject line. Broad questions should be reserved for office hours—and we encourage you to visit our virtual office hours via Zoom.

Question & Answer Forum

Please use this forum to post questions about the course material, assignments, the learning management system or online homework. **The instructor/GSI will monitor this forum,** but you should also feel free to post answers to help other students. This helps to create a general FAQ so that all students in the course may benefit from the exchange.

Course Materials and Technical Requirements

Required Materials

- All course readings and required materials will be provided within the bCourses platform.

Technical Requirements

This course is built on a Learning Management system (LMS) called Canvas and you will need to meet these computer specifications to participate within this online platform.

Optional

Canvas allows you to record audio or video files of yourself and upload them in the course. Although doing so is not required for any of the activities, using these features will enhance your engagement in the course. If you would like to use these features, you will need to have a webcam and a microphone installed on your computer.

Technical Support

If you are having technical difficulties, please alert the GSI immediately. However, understand that neither the GSI, nor the professor can assist you with technical problems. You must call or email tech support and make sure you resolve any issues immediately.

In your course, click on the "Help" button on the bottom left of the global navigation menu. Be sure to document (save emails and transaction numbers) for all

interactions with tech support. **Extensions and late submissions due to "technical difficulties" will not be accepted.**

Learning Activities

VERY IMPORTANT

You won't be able to access your course material until you read and make your pledge to Academic Integrity.

You are expected to fully participate in all the course activities described here.

1. Read all assigned readings
2. Watch and listen to the lecture presentations
3. Read web-based announcements and postings assigned during the course
4. Compose and post assigned responses to lectures and readings
5. Complete all essays and quizzes
6. Complete the final essay

Modules

A module is a grouping of topics related to one area of study, typically with readings, lectures and various kinds of assignments. Each module contains a list of Learning Outcomes for the module. Your assignments reflect the learning activities to perform to reach those outcomes. For an at-a-glance view of due dates and projects, refer to the course **Calendar** within bCourses.

Reading Assignments

Each module includes assigned readings relevant to each topic covered in that module.

Multimedia Lectures

Recorded lectures support your readings and assignments but also contain additional material that may be included in the assignments. Each lecture has been broken into sections. You are encouraged to take notes while viewing the lectures as you would in a regular classroom.

Discussion Forums

Weekly Discussion Forums

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 should refer to some of the readings / lectures, to connect your response to the class materials. You will be required to post one original post every week (please check the syllabus below for details); if you are one of the first five students to post, your post may be original. If you are later than the first five, please use your post to (in part) respond to something that has already been posted by a classmate. In addition, your post can, of course, contain unprompted thoughts. The post should be 200–250 words.

While the Discussion Forum assignments are asynchronous (not real time), you will be expected to make your posting by Saturday at 11:59 pm (PDT) each week. If you want to post more than once, you are encouraged to do so. See the instructions within each discussion forum for further guidelines.

Questions and Answers Forum

Please use this forum to post questions about the course or topics being studied. The questions will be answered in the forum by the course instructor or GSI. This way, all students benefit from seeing the answers. This is the preferred place to ask and get answers to questions that are likely to be of general interest.

Quizzes

Each week you will complete a (very) short quiz on the week's materials.

Portfolio Essays (Modules 3, 4 & 6)

For Modules 3, 4, & 6, you will prepare a Portfolio Essay (in addition to your Discussion Post). Please 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 5 or more references to sources you have used, but please don't use Wikipedia as a stand-alone source. Post these essays by **Sunday 11:59 pm PDT**.

Peer Review Essay (Module 7)

For Module 7, you will choose *one essay* from your previous (three) submissions to expand upon for your final assignment. Please upload this original essay to Canvas, and then provide *thoughtful comments* on three essays of your classmates. Your comments will help them improve their content for final revision. In turn, their comments will help you to improve yours.

Final Essay

You will be asked to expand upon your selected peer review essay for the final assignment, taking into account some of the comments from your classmates. You will need to increase the length to 1200 – 1400 words and improve the content based upon comprehensive learning from the course and comments from classmates and instructors. **Your final portfolio essay is due on August 16 11:59 PDT**.

Reminder: Your Course End Date

Your course will end **on August 16th, 2019**. As you work through the course, please keep the end date in mind, and if you want to save any commentary or assignments for future reference, please make sure to print or copy/paste those materials before your access ends.

Grading and Course Policies

Your final course grade will be calculated as follows:

Table 1: Final Grade Percentages

Category	Percentage of Grade
Portfolio essays (approximately 500 words)	30 %
Peer-review assignment	10 %
Weekly forum posts (200–250 words)	30 %
Weekly quizzes	5 %
Final Essay (1200 – 1400 words)	20 %
Mandatory Office Hour	5%

You must pass the final project to pass the course.

It is important to note that not all components are graded online and included in the online course grade book. Because of this, the online course grade book will not display your overall course grade at any given time or your final grade. It should simply be used to assess your performance on the components that are included

within it: the discussions, written assignments, and quizzes. Your final letter grade will be mailed to you by the registrar's office.

Late Work Policy

Late work will lose a half of a letter grade every day past the deadline (i.e. from a B- to C). After three days, late work will no longer be accepted. This policy will be strictly enforced.

Course Policies

Promptness

Homework assignments and discussion forum postings all have specific final due dates and times. You will not receive full credit if assignments are submitted after the indicated deadline.

Further, each online activity must be submitted through the course website by the due date. Fax or mail submission will not be accepted. Students who wait until the final hours prior to a submission deadline risk having problems with their ISP, hardware, software, or various other site access difficulties. Therefore, it is advisable to submit assignments and papers through the course website early. *The multiple days allowed for submission are to accommodate the busy schedules of working professionals, not to accommodate procrastination.* Students should plan accordingly and get into the habit of checking the course website several times each week, and submitting and posting early.

Honor Code

The student community at UC Berkeley has adopted the following Honor Code: "As a member of the UC Berkeley community, I act with honesty, integrity, and respect for others." The expectation is that you will adhere to this code.

Collaboration and Independence

Reviewing lecture and reading materials and studying for exams can be enjoyable and enriching things to do with fellow students. This is recommended. However, unless otherwise instructed, homework assignments and the online quizzes / essays are to be completed independently. Materials submitted as homework should be the result of one's own independent work.

Collegiality

During our discussions, challenges must be posed professionally and respectfully. Discriminatory, intimidating, and otherwise intolerant language will not be permitted and will be addressed immediately.

Cheating

A good lifetime strategy is always to act in such a way that no one would ever imagine that you would even consider cheating. Anyone caught cheating on a quiz or exam in this course will receive a failing grade in the course and will also be reported to the University Center for Student Conduct. The expectation is that you will be honest in the taking of exams.

Plagiarism

This class will be using Turnitin. Turnitin is an online plagiarism detection service that matches submitted papers to a text-matching database consisting of traditional publications, internet publications, and other UC Berkeley student papers. It is a useful tool for learning proper summary, paraphrase, and quotation skills in addition to identifying overt instances of plagiarism. Further information and instructions can be found at Turnitin.com.

All written work submitted in this course, except for acknowledged quotations, is to be expressed in your own words. It should also be constructed upon a plan of your own devising. The Berkeley Campus Code of Student Conduct defines plagiarism as "the use of intellectual material produced by another person without acknowledging its source" and stipulates that plagiarism includes:

1. Copying from the writings or works of others into one's academic assignment without attribution, or submitting such work as if it were one's own;
2. Using the views, opinions, or insights of another without acknowledgment; or
3. Paraphrasing the characteristic or original phraseology, metaphor, or other literary device of another without proper attribution.

Unacknowledged use of the words or ideas of others from any medium (print, digital, or otherwise) is plagiarism. The submission of plagiarized work will, under University rules, render the offending student subject to an F grade for the work in question or for the whole course, and will also make him/her liable for referral to the Student Judicial Affairs Office for further disciplinary action. Educate yourself about the campus code of conduct in relation to plagiarism. Ignorance is not an excuse. If you feel overwhelmed about an assignment, speak to the professor or your GSI. They are here to support you. PLEASE do not plagiarize!

Academic Integrity and Ethics

Cheating on exams and plagiarism are two common examples of dishonest, unethical behavior. Honesty and integrity are of great importance in all facets of life. They help to build a sense of self-confidence, and are key to building trust within relationships, whether personal or professional. Please refrain from any actions that undermine what we are dedicated to doing - furthering knowledge for the benefit of humanity.

Incomplete Course Grade

Students who have substantially completed the course but, for serious extenuating circumstances, are unable to complete the final exam, may request an Incomplete grade. This request must be submitted in writing or by email to the GSI and course instructor. You must provide verifiable documentation for the seriousness of the extenuating circumstances. According to the policy of the college, Incomplete grades must be made up within the first three weeks of the next semester.

Students with Disabilities

If you are requiring course accommodations due to a physical, emotional, or learning disability contact the UC Berkeley's Disabled Students' Program (DSP).

Notify the instructor and GSI through course email and inform them which accommodations you would like to use.

UC Berkeley is committed to providing robust educational experiences for all learners. With this goal in mind, we have activated the ALLY tool for this course. You will now be able to download content in a format that best fits your learning preference. PDF, HTML, EPUB and MP3 are now available for most content items. For more information visit the alternative formats link or watch the video entitled, "Ally First Steps Guide."

End of Course Evaluation

Before your course end date, please take a few minutes to participate in our Course Evaluation to share your opinions about this course. You will be receiving the Course Evaluation link via email. The evaluation does not request any personal information, and your responses will remain strictly confidential. You may only take the evaluation once. It will close August 15, 2019.

Course Outline

Week 1: Water and Sanitation Justice 6/24 – 6/30

Presentations

- Lecture 1.1: Technology, Society, and Water
- Lecture 1.2: Approaches to Water Justice
- Lecture 1.3: Water Use and Justice
- Lecture 1.4: Understanding Struggles for water Justice

NOTE: The Portfolio Essay mentioned in Professor Crow's Lectures is **not** due this week; it is your first Portfolio Essay, but is due on July 13.

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.

Additional Resources

- Video: Global Water Scarcity, Contaminated Drinking Water in California's Central Valley

Assignments

- Discussion Forum
- Quiz

Week 2: Governing Water 7/1 – 7/7

Presentations

- Lecture 2.1 Water Governance
- Lecture 2.2 Integrated Water Resource Management
- Lecture 2.3 Environmental Justice

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.

Additional Resources

- Video: Environmental Justice in Everyday Life

Assignments

- Discussion Forum
- Quiz

Week 3: Water Justice in the Global South and North 7/8 – 7/14

Presentations

- Lecture 3.1 The Nature of Access and Injustice
- Lecture 3.2 Sociopolitical Factors in Water Access
- Lecture 3.3 Water Injustice in the Global South
- Lecture 3.4 Water Injustice in the Global North
- Lecture 3.5 The Drinking Water Disparities
- Lecture 3.6 Bridging the South and North

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, Carolina and Isha 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*

Additional Resources

- Video: Peri-urban Pathways in Delhi

Assignments

- Discussion Forum
- Quiz
- Portfolio Essay

Week 4: Sanitation Justice and Injustice 7/15 – 7/21

Presentations

- Lecture 4.1 Sanitation, health, and justice
- Lecture 4.2 Low-cost sanitation and financing
- Lecture 4.3 Sanitation workers
- Lecture 4.4 Innovative efforts in sanitation

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."
- 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.
- Bill and Melinda Gates Foundation. Strategy Overview of Reinvent-the-Toilet.

Additional Resources

- Video: Gender equality: A view from the loo
- Video: What is sanitation?
- Video: Teacher-Facilitated Community-Led Total Sanitation
- Video: Iko Toilets
- Video: Meet Mr. Toilet

Assignments

- Portfolio Essay
- Quiz
- Discussion Forum

Week 5: Human Rights for Water and Sanitation 7/22 – 7/28

Presentations

- Lecture 5.1 Human Right(s) to Water and Sanitation
- Lecture 5.2 Human Right to Water and Sanitation Struggles
- Lecture 5.3 Critiques and Alternatives

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.
- 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

Optional Readings:

- PAGES 6-13. "Water Justice City Profile: Cochabamba" by University College London.

Additional Resources

- Video: Thirsty for Justice

- Video: Rights versus Commons

Assignments

- Discussion Forum
- Quiz

Week 6: Climate Justice 7/29 – 8/4

Presentations

- Lecture 6.1 Climate Change, Water, and Sanitation
- Lecture 6.2 Climate Justice
- Audio recording 6.1 Navroz Dubash and Distributional Justice in Climate Change
- Audio recording 6.2 Tracy Perkins and Procedural Justice in Climate Change

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.
- de Albuquerque, Catarina. "Sanitation and Climate Change: The Connection That Needs to Be Made." The Huffington Post.

Optional Readings:

- EXECUTIVE SUMMARY Intergovernmental Panel on Climate Change and Working Group II. (2008). "Climate Change and Water."
- Worland, Justin. (2016). "How Climate Change Unfairly Burdens Poor Countries." 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.
- Dubash, Navroz. (2015). "Why India has a Point at the Paris Climate Talks." Time.

Assignments

- Portfolio Essay
- Quiz
- Discussion Forum

Week 7: Irrigation and Water Justice 8/5 – 8/11

Presentations

- Lecture 7.1 Justice and "Big Water"
- Lecture 7.2 Big Dams and Water Justice
- Lecture 7.3 Is Participatory Irrigation Management More Just?

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.
- 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:

- An entrepreneur creating chances at a better life. (September 26, 2011) New York Times.
- 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.

Additional Resources

- Video: Is the Three Gorges a Ticking Time Bomb?
- The Miracle Water Village
- Barbara van Koppen short video

Assignments

- Peer Review Assignment
- Quiz

Week 8: Moving Toward Justice 8/12 – 8/16

Presentations

- Lecture 8.1 Panel with Dr. Ben Crow, Dr. Isha Ray, Dr. Carolina Balazs, Kristen Rudestam, and Abigail Brown

Final Paper | due as Word or pdf file | August 16 11:59pm PDT