ESM 225: Water Policy
Bren School of Environmental Science and Management

Course Information and Syllabus
Spring 2023

Instructor: Cora Snyder

Class Time: Friday 10:30 AM – 1:00 PM

Class Location: BH 1510 (Sycamore)

Office: BH 4426

Office Hours: Fridays 1:30 – 3:30 PM or by appointment

Email: cora.snyder@bren.ucsb.edu

Course Description:
Water policy broadly comprises the structures, processes, rules, and institutions that we use to manage water resources. This course will provide an overview of water policies at global, national, statewide, and local scales, across public and private sectors. The course will look back into history at how and why these policies were developed, and forward into the future at how they can be improved to meet 21st century realities, particularly climate change. This course will be a combination of lectures, guest speakers, and class discussions. Students are expected to actively participate and contribute to the learning experience of the whole class.

Learning Outcomes:
- Students attain high-level knowledge of the historical, social, political, and ecological drivers of water issues and management approaches from global to regional scales.
- Students understand a broad spectrum of perspectives on water management and policy, with an emphasis on historically marginalized or ignored perspectives.
- Students leave the class with a sense of interest and agency in addressing water challenges.

Grading:

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<tr>
<td>Class Participation</td>
<td>20</td>
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<tr>
<td>Assignment #1</td>
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<td>Assignment #2</td>
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<td>Assignment #3</td>
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<td>Assignment #5</td>
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Required Readings:

- *Cadillac Desert*, Marc Reisner (Amazon link)
- *A Twenty-First Century U.S. Water Policy*, Christian-Smith et al. (Amazon link)
- All other readings will be free to access online and provided via links in the syllabus

Recommended Resources:

- Sign up for California Department of Water Resources ‘Water News’ daily email by visiting the DWR email subscription page and selecting the 'Water News' topic
- Maven’s Notebook
- Pacific Institute
- Circle of Blue
- PPIC Water
- US Water Alliance
- Alliance for Water Efficiency
- Water Education Foundation
- Water Talk podcast
- Ripple Effect podcast
- Global Water Partnership News Flow newsletter
- UC Davis water blog
- The Dreamt Land by Mark Arax
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
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<tr>
<td>1</td>
<td>April 7</td>
<td>Course Introduction &amp; Global Water Policy</td>
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<td>2</td>
<td>April 14</td>
<td>US Water Policy</td>
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<td>3</td>
<td>April 21</td>
<td>US Water Rights Law</td>
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<td>Guest Speaker: David Pilz, AMP Insights</td>
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<td><strong>Assignment #1: US water policy memo</strong></td>
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<td>4</td>
<td>April 28</td>
<td>Colorado River Basin</td>
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<td>Guest Speaker: Taylor Hawes, The Nature Conservancy</td>
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<td>5</td>
<td>May 5</td>
<td>California Water</td>
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<td><strong>Assignment #2: Colorado River water strategy memo</strong></td>
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<td>6</td>
<td>May 12</td>
<td>The Water-Energy-Climate Nexus</td>
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<td><strong>Assignment #3: California water policy speech</strong></td>
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<td>7</td>
<td>May 19</td>
<td>Water and Social Equity</td>
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<td>Guest Speaker: Anecita Augustina, California Department of Water</td>
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<td>Resources</td>
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<td><strong>Extra Credit</strong>: Attend Santa Barbara Water Commission meeting on</td>
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<td>Thursday, May 18, 9:00 – 11:00 AM. <a href="https://SantaBarbaraCA.gov/WC">SantaBarbaraCA.gov/WC</a></td>
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<td>8</td>
<td>May 26</td>
<td>Water Finance and Corporate Water Stewardship</td>
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<td>Guest Speaker: Lindsay McPhail, Metropolitan Water District of</td>
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<td>Southern California</td>
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<td><strong>Assignment #4: Water and social equity memo</strong></td>
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<td>9</td>
<td>June 2</td>
<td>Water Policy and Management in Santa Barbara – <strong>Field Trip</strong></td>
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<td>Guest Speaker: Dakota Corey, City of Santa Barbara</td>
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<td>10</td>
<td>June 9</td>
<td>Final Presentations and Course Wrap-Up</td>
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<td><strong>Assignment #5: Santa Barbara water management presentation</strong></td>
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Summary of Assignments

*More detailed instructions will be provided in class.*

1. **US Water Policy Priorities Memo.** Due April 21, print out and bring to class.
   You have been appointed to the National Water Commission for the US and have been asked to come up with recommendations for US domestic water policy priorities. Write a three-page memo outlining what the high-level policy priorities should be, and why.

2. **Colorado River Water Policy Memo.** Due May 5, print out and bring to class.
   You have been asked to advise the US Bureau of Reclamation on long-term strategies to sustain the Colorado River Basin. Select one of ten strategies provided and write a three-page memo explaining the strategy and its pros and cons.

3. **California Water Policy Priorities Presentation.** Present in Class, May 12.
   California is currently developing the 2023 state water plan. Based on the 2018 plan, and the Water Resilience Portfolio and progress report, prepare a two-minute speech to the Department of Water Resources arguing for one item that should be prioritized in the 2023 plan, and why. Be prepared to answer questions. No slides allowed.

4. **Water and Social Equity Memo.** Due May 26, print and bring to class.
   Revisit one of your past three assignments and consider how equity and environmental justice could be more incorporated into the policies you recommended. Write a two-page addendum memo laying out the equity and/or environmental justice considerations of the policy, both from a historical and future-looking perspective, and how they should be addressed.

5. **Santa Barbara Water Commission Presentation.** Present in Class, June 9.
   You have been asked to give a presentation to the City of Santa Barbara Water Commission. Prepare a 10-minute presentation with slides. Be prepared to answer questions. Topic TBD.

Notes on Assignments

- You must complete all assignments to pass the course, even if skipping an individual assignment would not result in a non-passing grade by percentage.
- Late assignments lose 1 point after one day, and 0.25 points per day after that.
- All written assignments must have citations. Reference style is up to your best judgment given the assignment format, and citations must be consistent throughout the document.
- To contest a grade, please come to office hours. I am open to revisions for higher grades on a case-by-case basis.
Course Overview

Class 1, April 7 – Introduction to Water Policy and Global Water Governance

*This class will focus on introducing the course, getting to know each other, an overview of the global water crisis, and a dive into global water governance based on the framework of the United Nations Sustainable Development Goals.*

**Required Readings:**


**Other Good Resources:**

Class 2, April 14 – US Water Policy

This class will focus on the legal and institutional underpinnings of water policy in the United States, including water law, key federal water policies, and recent federal bills passed affecting water resources.

Required Readings:

- A Twenty-First Century U.S. Water Policy, Chapter 1, 2, and Appendix.

Other Good Resources:

Assignment #1: US water policy memo due in class

This class will focus on the legal structure for allocating water resources in the United States. Guest speaker Davíd Pilz, Managing Partner at AMP Insights, will talk about environmental water transactions and how they operate within the water rights system of the Western United States.

Required Readings:

- *Cadillac Desert*, Introduction and Chapter 1

Other Good Resources:

Class 4, April 28*: Colorado River Basin

*Class time / format subject to change due to Master’s Project Final Presentations

This class will provide a high-level overview of the Colorado River Basin – its history, geography, water infrastructure, key players, and current issues. Guest speaker Taylor Hawes, Director of The Nature Conservancy’s Colorado River Program, will present on the present on the current crisis state of the Colorado River and efforts being made to bring it into balance and sustain a healthy river long term.

Required Readings:

- *Cadillac Desert*, Chapters 4 and 8
- 10 Strategies for Climate Resilience in the Colorado River Basin: Synopsis. [https://www.tenstrategies.net/_files/ugd/a4c8f1_868ca40efe4d47a18305b98a2549106c.pdf?index=true](https://www.tenstrategies.net/_files/ugd/a4c8f1_868ca40efe4d47a18305b98a2549106c.pdf?index=true)

Other Good Resources:

- 10 Strategies for Climate Resilience in the Colorado River Basin. Full report. [https://www.tenstrategies.net/_files/ugd/a4c8f1_17ecc9178a9d430e94e4c43e0d5eab91.pdf?index=true](https://www.tenstrategies.net/_files/ugd/a4c8f1_17ecc9178a9d430e94e4c43e0d5eab91.pdf?index=true)
- Who’s really using up the water in the American West? Vox, 2022. [https://www.youtube.com/watch?v=f0gN1x6sVTc](https://www.youtube.com/watch?v=f0gN1x6sVTc)
- Ten Tribes Partnership (peruse website). [https://tentribespartnership.org/](https://tentribespartnership.org/)
Assignment #2: Colorado River water strategy memo due in class

This class will provide a high-level overview of California water – its history, geography, water infrastructure, key players, and current issues.

Required Readings:

- *Cadillac Desert*, Chapter 10

Other Good Resources:

- *Cadillac Desert*, Chapter 2
- California Water Timeline, Water Education Foundation. [https://www.watereducation.org/aquapedia/california-water-timeline](https://www.watereducation.org/aquapedia/california-water-timeline)
- History of Water Development and the State Water Project, CA DWR. [https://water.ca.gov/Programs/State-Water-Project/SWP-Facilities/History](https://water.ca.gov/Programs/State-Water-Project/SWP-Facilities/History)
Assignment #2: California water policy speeches in class

This class will cover the water-energy-climate nexus, and opportunities for more integrated management to increase benefits and reduce trade-offs across water, energy, and climate change policy decisions and management actions.

Required Readings:

- A Twenty-First Century U.S. Water Policy, Chapter 9

Other Good Resources:

- A Twenty-First Century U.S. Water Policy, Chapter 10
Class 7, May 19 – Water and Social Equity

This class will focus on the intersections between water and social equity, providing a high-level overview of water equity issues. Guest speaker Anecita Augustina, Tribal Policy Advisor for the California Department of Water Resources, will discuss the history of tribes and water in California and current tribal water policy issues.

Required Readings:

- A Twenty-First Century U.S. Water Policy, Chapter 4

Other Good Resources:

- A Twenty-First Century U.S. Water Policy, Chapter 3
- The Aqueduct Between Us, 2020. [https://www.youtube.com/watch?v=V3xwN3nKDUg](https://www.youtube.com/watch?v=V3xwN3nKDUg) (video)
- Chinatown, 1974 (movie). [https://www.youtube.com/watch?v=20FiP7g4tU](https://www.youtube.com/watch?v=20FiP7g4tU)
- Map of state-designated disadvantaged communities in California: [https://oehha.ca.gov/calenviroscreen/sb535](https://oehha.ca.gov/calenviroscreen/sb535)
- Community Water Center. [https://www.communitywatercenter.org/](https://www.communitywatercenter.org/)
Assignment #4: Water and equity memo due in class

This class will be split into two topics: water finance and corporate water stewardship. Guest speaker Lindsay McPhail, Associate Resource Specialist at Metropolitan Water District of Southern California, will present a primer on water utility finance.

Required Readings:


Other Good Resources:

- CEO Water Mandate. https://ceowatermandate.org/
- Water Risk Filter, WWF. https://waterriskfilter.org/
- Water – CDP. https://www.cdp.net/en/water
- California Water Action Collaborative: www.cawateraction.org
Class 9, June 2 – Water Management in Santa Barbara

This class will cover local Santa Barbara water policy and management. Guest speaker Dakota Corey, Water Supply and Services Manager for the City of Santa Barbara, will guide us on a field trip of Santa Barbara water resources and present on how they are managed. Field trip itinerary TBD.

Required Readings:


Other Good Resources:

- City of Santa Barbara Water Conservation Strategic Plan, 2020.
- Videos of Santa Barbara water infrastructure:
  - 100th Anniversary of Gibraltar Reservoir
  - State Water Project
  - Santa Barbara Desalination Plant: The Supply Nearby
  - Aerial Video of Gibraltar Reservoir and Lake Cachuma August 2015
  - Cachuma Reservoir Aerials September 2016
- City of Santa Barbara Water Resources.
- Central Coast Water Authority. https://www.ccwa.com/
Assignment #5: Final presentations in class

This class will include student presentations on Santa Barbara water management and course wrap-up.

Required Readings:

- None

Other Good Resources:

- Finish Cadillac Desert and A Twenty-First Century U.S. Water Policy
- https://www.joshwaterjobs.com/
Policies and Procedures

I am committed to creating a safe and inclusive learning environment for all students. I am available to talk if you have any concerns. Below are many of the policies and resources that you might need. Please feel free to be in touch if you have questions.

Individual Differences and Accommodations
UCSB is committed to providing reasonable academic accommodations to students with disabilities (http://www.ada.ucsb.edu). If you anticipate having trouble in this course for any reason, please consult with me at the beginning of the course. Any student wishing to receive accommodations for a verified disability should request academic accommodations through the Disabled Students Program (http://dsp.sa.ucsb.edu, 805-893-2668) as soon as possible.

Academic integrity/Responsible Scholarship
Honesty and integrity in all academic work are essential for a valuable educational experience. The Office of Judicial Affairs has policies, tips, and resources for proper citation use, recognizing actions considered to be cheating or other forms of academic theft, and students’ responsibilities, available on their website at: http://judicialaffairs.sa.ucsb.edu. Students are responsible for educating themselves on the policies and to abide by them. Assignments with plagiarism will be given zero points.

Religious Observances
UCSB is committed to providing reasonable academic accommodations to allow students observances of their religious beliefs. Whenever possible, students will be given reasonable time to make up any academic assignment that is missed due to participation in a religious observance. It is your responsibility to inform me as soon as possible of any intended absences for religious observances.

Copyright and Course Recording Policy
All course materials (class lectures and discussions, handouts, examinations, web materials) and the intellectual content of the course itself are protected by United States Federal Copyright Law, the California Civil Code. The UC Policy 102.23 expressly prohibits students (and all other persons) from distributing or selling lectures notes and all other course materials without the prior written permission of the instructor (See http://policy.ucop.edu/doc/2710530/PACAO5100).

Students are permitted to make notes solely for their own private educational use. Exceptions to accommodate students with disabilities may be granted with appropriate documentation. To be clear, in this class students are forbidden from completing study guides and selling them to any person or organization. In addition, students and class visitors may not make audio or visual recordings of lectures, class discussions, or class presentations without the advance written consent of the instructor.

Approved recordings are to be solely used for the purposes of individual or group study by students enrolled in the class. If the recordings are to be used in any other manner, including any form of reproduction or distribution on the Internet or any other media, then in addition to the advance written consent of the instructor, the person making the recording shall obtain written consent from any
student whose words or likeness appear in the recording. Inherent within this policy, instructors recognize that they must take into consideration and make accommodations to students who require access to course materials in compliance with the University’s obligations under the Americans with Disabilities Act (ADA).

**Discrimination and Sexual Harassment**

As faculty members and instructors, we are required to report discrimination, sexual harassment, or sexual violence involving students. All UC employees including faculty and supervisors (except those specifically identified as confidential employees) are required to notify the Title IX office if anyone in the University community brings information about, or an employee becomes aware of, a possible incident of discrimination, sexual violence, or sexual harassment. Such reports are not confidential, and all parties must be named.

The Title IX Compliance and Sexual Harassment Policy Compliance Office (TIX/SHPC) provides assistance in preventing and resolving and investigating complaints of sexual harassment/sexual violence and gender discrimination. It is also illegal to discriminate against a woman because of pregnancy, childbirth, or a medical condition related to pregnancy or childbirth. [http://www.oesh.ucsb.edu/](http://www.oesh.ucsb.edu/)

If you believe you may be experiencing discrimination, exclusion from or denial of benefits of any program at UCSB, on the basis of your sex, gender or gender presentation, the TIX/SHPC is available to receive and respond to your complaint.

If you would like confidential support, the CARE: Campus Advocacy, Resources, and Education program can provide confidential emotional support, connect you with medical care, give you options for filing a report, help you understand your legal rights, facilitate housing needs, and connect survivors to campus and community funding sources. Resources can be found at: [http://sexualviolence.ucsb.edu/get.help/](http://sexualviolence.ucsb.edu/get.help/)

**Distressed Students**

UCSB is committed to providing a quality learning environment for its students. It is not uncommon for students to encounter emotional and mentally stressful challenges over the course of their studies. If you would like to talk with a counselor, please reach out to Counseling and Psychological Services (CAPS) at 805-893-4411. If you know of someone else in distress who may need help, please encourage them to contact CAPS or submit a referral online. UCSB’s Student Wellbeing site and the Bren School’s Student Resources website includes other links to resources that can help you take care of yourself and others in our community.