Fresh Water Policy

Lectures
MWF 12:30 - 1:40 p.m.  
Rm 071, Social Sciences 2

Professor Brent M. Haddad; 493 Natural Sciences 2; bhaddad@ucsc.edu
Office hours: Wednesdays 1:40 – 3:15, and by appointment

Teaching Assistant: Joanna Ory, jory@ucsc.com;

COURSE OVERVIEW: Part One of this course provides an interdisciplinary introduction to basic concepts, terms, and tools of water-policy analysis. Part One draws from law, finance, epidemiology, hydrology, geology, ecology, engineering, and other disciplines. In Part Two, students apply their new knowledge and skill base to case studies and guest lectures.

SECTION/DISCUSSION: One opportunity for discussion/clarification is your ENVS 165 Student Discussion Website (WebCT). A second opportunity involve sections to be held as follows:

- Tuesdays  11:00 to 11:50 in ISB 221
- Thursdays  1:00 to 1:50 in ISB 431

EVALUATIONS/GRADING: Students will be evaluated and/or graded on the basis of:

- Three (3) problem sets due in class on days to be announced (20% of total grade);
- One (1) midterm examination on Monday, November 5th (25%);
- One (1) water-issue dossier due in class on Friday, December 7th (25%);
- A final essay due in class on Friday, December 7th (20%);
- Attendance and participation in Sections (10%); and
- Participation in the ENVS 165 Group Discussion Website (WebCT) (5% bonus points).

The water-issue dossier is a 5-7 page interdisciplinary report on a water issue of the student’s choosing. Water-issue dossiers are due in class on Friday, December 7; otherwise they will be considered late.

The final essay will invite students to reflect on the major themes of the course and link them to the course’s case studies, terms, and concepts.

“In class” means handed to Professor Haddad before he leaves the classroom at the end of the lecture. Late water-issue dossiers, essays, and problem sets receive a score of zero.

READING ASSIGNMENTS: The three (3) required texts include:


All other required readings are available online. Guest lecture readings will be announced later in the quarter.
COURSE OUTLINE: The course will be presented in two parts, outlined as follows.

Part One: Interdisciplinary Tools and Concepts

F Sep 28  Course Introduction and Overview; Counting Water; Patterns of Water Use


M Oct 1; & W Oct 3  Surface Water and Groundwater


F Oct 5  Aquatic Ecology


M Oct 8  Dams and Hydropower


W Oct 10  No class today due to extra session on October 29

F Oct 12  Water Reliability and Infrastructure


M Oct 15  Water Quality


W Oct 17  Water Treatment I: Engineering

F Oct 19  Water Treatment II: Policy

M Oct 22  Water Law I: State and National Law


W Oct 24  Water Law II: State and National Law (continued) and International Law

F Oct 26  Water Finance I: Raising Capital for Water Projects

M Oct 29  Water Finance II: Assigning Costs to Ratepayers and/or Shareholders

M Oct 29  Special Session dedicated to the Asano/Mills and Mix readings
6:30 p.m. (Location TBA)

W Oct 31  Assessing Water Projects Using Benefit-Cost Analysis

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Part Two: Case Studies and Guest Lectures

F Nov 2  The Policy and Practice of Water Sanitation
Guest Lecturer: Theresa R. Slifko, Ph.D., Los Angeles County Sanitation Districts

M Nov 5  Midterm Examination

W Nov 7  Public Oversight of Private Water Utilities
Guest Lecturer: Diana Brooks, Division of Ratepayer Advocates, California Public Utilities Commission

F Nov 9  
**Living History: City of Los Angeles and the Owens Valley**

M Nov 12  
**Holiday – no class**

W Nov 14  
**The Tuolumne River: Sharing a Vital Water Resource**
Guest Lecturer: Roger Masuda, Esq., Partner, Griffith and Masuda, and General Counsel to the Turlock Irrigation District

F Nov 16  
**The Relationship Between Water and Energy**

M Nov 19  
**Prospects for Water Quality Improvement in Developing Nation Cities**
Guest Lecturer: Brian Petersen, Doctoral Candidate, UCSC Environmental Studies

W Nov 21  
**Carred River Protection: Evaluating the Coastal Water Project**

F Nov 23  
**Thanksgiving Holiday – no class**

M Nov 26  
**How California and Its Water Agencies are Planning for Climate Change**
Download and read the “Climate Change Fact Sheet,” “Lester Snow Presentation on Climate Change,” and especially “Climate Change and California Water Management Challenges,” presented by Kamyar Guivetchi. Available at the State of California, Department of Water Resources webpage at: [http://www.climatechange.water.ca.gov/articles.cfm](http://www.climatechange.water.ca.gov/articles.cfm).

W Nov 28  
**The Future of Water Reuse and Desalination in the U.S.**
Guest Lecturer: G. Wade Miller, Executive Director, WaterReuse Foundation, Alexandria, Virginia

F Nov 30  
**Water-borne Diseases: Malaria and Dengue Risks**

M Dec 3  
**Russian River Management: Balancing Multiple Interests**
Guest Lecturer: Jean Debroux, Ph.D., Kennedy Jenks Consulting

W Dec 5  
**Re-plumbing a Nation: China’s Search for Urban Water Supply**


F Dec 7  

Course Summary

*Water-Issue Dossiers and Final Essays due today in class.*