

ENVIRONMENTAL STUDIES 146

WATER QUALITY: POLICY, REGULATION, AND MANAGEMENT

University of California, Santa Cruz – Summer Session 1: June 22 - July 24, 2015

Tuesdays and Thursdays, 1:00 – 4:30 p.m.

Social Sciences 2, rm. 167

Instructor: Sarah Carvill

e: scarvill@ucsc.edu

c: (831) 359-9282

o: ISB 420 (not Nat Sci II; same hallway as Professors Bury, Cheng, and Press)

oh: Wednesdays, 2:00 – 4:00 p.m., and by appointment

Course Overview and Learning Goals

The goal of Environmental Studies 146 is to deepen your understanding of how both the federal government and the state of California have used and are using public policy to prevent (or attempt to prevent) water quality impairment. We will do this primarily through case studies of major pollution sources and the ways key statutes have been used to address those sources. In other words, this course is not intended to provide a comprehensive survey of pollution types and policy controls thereon; rather, the emphasis is on drawing out common themes and problems in the broad area of environmental policy by delving deeply into a few key water quality challenges.

We'll also be learning how to learn about policy. This course will introduce you to some analytical approaches and habits of mind that, in time, will help move public policy out of the realm of laws and dates to be memorized and make it an area of active inquiry— something that you can think critically about and of which you can ask interesting questions.

In the regular session, this course has two prerequisites, one of which (ENVS 140) is a survey of major U.S. environmental policies and provides an introduction to policy analysis. Because this prerequisite is not enforced for Summer Session courses, we will go over the structure and major programs of the Federal Water Pollution Control Act of 1972 (more commonly known as the Clean Water Act), as well as some basics of U.S. government structure and public policy analysis. I hope this will be a helpful review for more advanced students of environmental policy, and provide students who are new to these concepts with the foundation they need to be successful in ENVS 146. However, because this is an upper division, advanced policy seminar, there are limits to how much time we can spend recapping material that is covered in other courses offered by the department. If you have not taken ENVS 140 or an equivalent policy course, you will need to take extra care to stay caught up, and I hope you'll take advantage of my office hours to discuss course assignments and new concepts.

I heartily encourage all students to ask questions in class— whether they are basic questions on subjects you suspect that your classmates already understand, or tough ones to which I might not know the answers. Viewing the material through each other's eyes helps us all learn.

Course Requirements & Grading

Your grade in this course will be based on the following:

10% Attendance	10% Policy Memo Part I Draft
10% Participation	10% Policy Memo Part II Draft
24% Reading Responses	20% Policy Memo
10% Policy Briefs	6% Policy Memo Presentation

Participation and Attendance

I have carefully planned our course to ensure that each day includes a variety of different kinds of activities to break up the long meeting time. Traditional lectures will be supplemented by discussions, guest speakers, short tasks in small groups and pairs, and field trips. These activities require you to arrive in class fully prepared to engage with the material— not only for the sake of your own learning, but out of respect for your classmates and the busy professionals who will be taking time out of their days to meet with us. If you miss a day of class, you will miss vital preparation for the next day; if you are late, we may not be in the classroom. Accordingly, your attendance and participation in this class will together account for 20% of your final grade.

Written Work

For most class meetings, you will be expected to hand in brief written responses to assigned readings. These should be between 500 and 600 words per reading, and follow the format of “summary and critical response.” First, explain the main points of the reading and try to identify its central argument. This summary should be no more than half the total response at most; the challenge of concisely recapitulating a complex reading will help you understand it. The critical response is your opportunity to get into what you thought of the reading and why. You might choose to discuss what was and was not persuasive about the central argument or the questions it raises for you. Though it may be difficult for you to generate ideas for your critical responses at first, it will get easier with practice. The purpose of these short responses is to get you to grapple with material that we will be covering in class so that you arrive each day prepared to discuss it and ask questions about what you don’t understand.

Additionally, you will be required to complete two slightly longer (750 words) policy briefs. These short papers are designed to enhance your understanding of how water quality policy is made in California at both the statutory and regulatory levels; they are also intended to introduce you to online resources that you can use to track policy development and implementation. You will be oriented to the specific requirements of the assignments and given an opportunity to begin work on them during class.

This course has no final exam; instead, you will write a policy memo (1200-1500 words) on a water quality issue of your choosing. This assignment is due at the end of the session, but you will be required to turn in “down payments” earlier in the course in order to get feedback from me and from your peers. On the last day of class, you will give a short, informal presentation on your work to the rest of the class.

Please submit all reading responses, policy briefs, and the policy memo and drafts via the “Drop Box” in our eCommons site before the start of class (i.e., 1 p.m.) the day they are due. Late work compromises my ability to keep up with my grading and to give students’ papers the attention they deserve. In the absence of a prior arrangement with the instructor, late work will be docked 10% of the initial grade per day, up to five days, after which papers will not be accepted. Weekends are counted in the 5-day grace period.

Summer Session Courses: A Word of Warning

At UCSC, earning 5 course credits mean you have completed 35 classroom hours of study, and about 150 hours of work total. Because what goes on in those classroom hours must be at the college— and in this case, the upper division— level, it is expected that you spend the difference between your in-class study hours and your total study hours preparing for the work you’ll do in this classroom. In other words, this course may require 30 hours of work per week.

I am committed to making this intensive experience a good one for you, and I will be working very hard to support and facilitate your learning in ENV5 146, but nothing I can do changes the basic reality of a compressed course: In order to achieve a college-level understanding of these topics and fairly earn the course credit in five weeks, you are going to have to work pretty hard, too. You should plan on showing up to every class with at least one written response in hand, having prepared multiple readings and/or other assignments. You also need to do what is needed to ensure that you are awake, alert, and able to talk, listen, and think critically for the full three and a half hour period.

I don’t think this is necessarily a great way to learn— especially since many of you have jobs or internships this summer— but sometimes, for some people, it can be the best way to learn. Whether you favor the intensive format or not, you are paying to get five credits’ worth of engagement, knowledge, and understanding in the next five weeks; if you are not prepared to give that kind of time and attention to this class, I suggest that you take it in the regular session.

Academic Integrity

In the American college and university system, scholars and students use the ideas of their peers and predecessors to build new knowledge and understandings; in interdisciplinary fields such as environmental studies, collaboration is an essential part of problem-solving, and one we emphasize in undergraduate courses. Institutions that depend on the free and open exchange of ideas and information also depend on a culture of academic integrity. Consequently (and as you have probably noticed) there are strong formal and informal sanctions against academic misconduct in this university and in this department. I take plagiarism and cheating very seriously, and I expect that all work that you submit in this class will represent an original synthesis of your own ideas and the ideas of others. That means that information generated by others and used in your work must be clearly attributed to its original source, and either paraphrased in your own words or placed

in quotation marks. Helping someone cheat or letting someone copy your work is also considered academic misconduct; it is no different than cheating or copying yourself.

If you are caught committing academic misconduct, you will receive an F in this class, a letter in your permanent file, and possibly suspension, all of which will affect your future employment and graduate school prospects. If you are struggling in 146 or aren't sure if something is against the rules, please send me an e-mail or come to my office hours. Many of the confusing aspects of citation practices and group work will come up again and again in your academic career, so don't guess about the right thing to do; get a straight answer— before you cross a line and get into trouble. For help identifying plagiarism and learning how to avoid it, you can also visit <http://nettrail.ucsc.edu> (see “Bruin Success with Less Stress”).

Students with Disabilities

If you qualify for classroom accommodations because of a disability, please submit your Accommodation Authorization Letter from the Disability Resource Center (DRC) to me as soon as possible, preferably within the first week of the Summer Session. Contact DRC by phone at 831-459-2089 or by email at drc@ucsc.edu for more information.

Readings and Other Resources

All readings for this course will be available on eCommons (look under the “Resources” tab). Some readings are listed as TBA in the schedule because there are several good options and the best choice will depend on how quickly we move through the material and which early readings the class prefers; readings related to the field trips are still being finalized.

Course Schedule

Week 1: The Water Quality Problem		Homework to do for the next class meeting:
Tuesday June 23	Course Overview and Introductions Common Pollutants Documentary: Poisoned Waters	Read: Carpenter et al. 2011; Coglianesi et al. 2003; Duhigg 2009 (Overview) Write: Reading responses 1-3
Thursday June 25	Policy Analysis Concepts Common Pollutants (cont.)	Read: Andreen 2013; Press 2015, Ch. 4 Write: Reading responses 4-5 Policy Memo: Topic due <u>Fri.</u> 6/26
Week 2: Controlling Common Point Sources		Homework to do for the next class meeting:
Tuesday June 30	The Clean Water Act Review: 5 Major Programs Point Source Permitting (CWA Program #1) Wastewater Treatment (CWA Program #2) <i>Begin Policy Brief #1 in class</i>	Read: TBA Write: 3 questions for the field trip Policy Brief #1: Due Thurs. 7/2 Policy Memo: Be prepared to discuss your topic
Thursday July 2	Field Trip: Santa Cruz Wastewater Treatment Facility Note: Wear closed toe shoes	Read: Carvill 2010; Houck 2002, Ch. 2; Write: Reading responses 6-7 Policy Memo: Part I due <u>Fri.</u> 7/3
Week 3: Nonpoint Source Pollution Control in California		Homework to do for the <u>next</u> class meeting:
Tuesday July 7	Total Maximum Daily Loads (CWA Program #3) Porter-Cologne: California's Clean Water Act <i>Begin Policy Brief #2 in class</i>	Read: Dowd et al. 2008; review Press pp. 97-120 Write: Reading response 8; 3 questions for the guest speaker Policy Brief #2: Due Thurs. 7/7
Thursday July 9	Best Management Practices (CWA Program #4) Case Study: Agriculture on the Central Coast Guest Lecture: Ann Drevno Case Study: Sediment Pollution from Logging	Read: Duhigg 2009b; Duhigg 2009c Write: 3 questions for the guest speaker Policy Memo: Part II due Tues. 7/14

Week 4: Emerging Issues: Toxics and the WOTUS Rule		Homework to do for the next class meeting:
Tuesday July 14	The Safe Drinking Water Act Pesticides and Water Quality Case Study: Atrazine and Groundwater Guest Lecture: Joanna Ory	Read: TBA Write: Reading response 9-11 Policy Memo: Bring 3 clean copies for peer review of Parts I & II
Thursday July 16	Section 404 (CWA Program #5) and Waters of the US Peer Review of Policy Memos	Read: TBA Write: Reading response 12
Week 5: Stormwater and Wrap-Up		Homework to do for the next class meeting:
Tuesday July 21	Field Trip: Stormwater Management on Campus	Policy Memo: Full memo (Revised Parts I & II; Part III) due in last class; prepare presentation
Thursday July 23	Presentations Wrap-Up	Enjoy the rest of your summer!