

FW 868 Water Policy and Management
Fall 2013
Tu Th 2:40 PM - 4:00 PM
19 Natural Resources Building

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Office Hours: By appointment

Course Description

Broadly speaking, the purpose of this course is to learn about water policy and management from the perspective of a scientist. You will learn about major US environmental laws related to water, such as the Clean Water Act, the Safe Drinking Water Act, and the Wild and Scenic Rivers Act among others. However, water policy and management is more than just memorizing a set of laws. You will learn about the policy cycle, how agencies make regulations, how property rights and common law affect water management, how the courts have shaped water law and policy, and how science and policy interact (or don't). Many of you will go into careers in which you will interact with policymakers, this course is designed to give you a basic understanding of water policy and management as well as provide you with skills and knowledge that you can use in the future.

We will use case studies to learn about water policy and management and to achieve the goals of the course. We will start each case study with an introduction and discussion about what we know and what we need to know to evaluate the particular policy problem. We will move into discussions of the relevant laws and policies, the management or regulatory agencies that are the major players, and finally science-policy interactions. We will finish each case study with a summary and I will challenge you with a new case study to evaluate and apply what you have learned.

Goals for the Course

There are three main things I want you to be able to do by the end of this class:

- Evaluate water policy problems by asking appropriate questions, collecting data, analyzing relevant policies and laws, analyzing observations and data, making interpretations, and making recommendations.
- Make an informed decision about a controversial issue, other than those covered in class, involving a water policy and management topic.
- Design and carry out a project involving collection, analysis, and synthesis of data to solve a complex, open-ended problem.

Course Readings

This course relies on readings from a variety of sources, ranging from scientific literature to agency reports, rather than a single text book. All readings and other relevant course material will be posted on the course ANGEL site. It is your responsibility to read all materials *before* the relevant class meetings. Please familiarize yourself with the ANGEL site for this course.

Expectations

If you haven't had a course with me before, you might be surprised by the structure of the class. I expect a lot, and I place a great deal of responsibility on you. After all, I can't do your learning for you and this is a graduate-level course. I care very much that you learn in this course, and having me stand in front of you and talk at you for hours at a time allows *me* to present material but doesn't necessarily do much to help you learn. So, I have designed class sessions and assignments around having *you* gain experience with water policy and management, rather than having me talk at you about it. There will be lectures, but there will also be a lot of class activities that require participation and interaction. My goal is that you will come away from this course with skills and knowledge in water policy that you can use in the future, not just some material that you can spit back at me on a test.

I expect you to:

- take responsibility for your own learning
- come prepared for class and be an enthusiastic participant during class
- treat others with tolerance and respect
- act responsibly and reliably in group work
- set high standards for your work
- teach me something

You can expect me to:

- create interesting and challenging ways for you to learn about water policy and management and its connections with science, rather than just talking at you about my knowledge
- set high standards for the class
- treat you with fairness and respect
- take an interest in you and learn something from you
- be excited and knowledgeable about course material

Grades and Evaluation

Final grades will be based on the following assignments. To receive a passing grade, you must successfully complete all assignments. Keep in mind that 'A' (4) and 'B' (3) work is above average work. Merely completing an assignment in a perfunctory way is average (2) work. Complete details about the assignments will be provided in separate handouts, discussed in class, and posted on ANGEL. Your grade will be based on the following:

Assignment	% of Final Grade	Points
In-class activities:		
New case challenges (3)	10%	45
Class participation	10%	45
Service learning project:		
Work plan	13	60
Progress reports (3)	13	60
Draft	16	70
Presentation	16	70
Final report	22	100
Total	100%	450

Service Learning

As a part of this course, students will participate and complete a service learning project. Some students may be familiar with service learning in the form of internships and community service; however, there are several types of service learning. The form used in this class is academic service learning. The MSU Center for Service-Learning and Civic Engagement defines academic service learning as:

“A teaching method that combines community service with academic instructions as it focuses on critical, reflective thinking and civic responsibility. Service-learning programs involve students in organized community service that addresses local needs, while developing their academic skills, sense of civic responsibility and commitment to the community.”

Over the course of the semester, you will be working on water policy projects that you develop or have been proposed by local stakeholder groups and agencies. You will work in teams on this project. Complete details about the service learning project will be provided in a separate handout, discussed in class, and posted on ANGEL.

Class Policies

Attendance: One of your responsibilities is to come to class (and to come on time). I do not take attendance, but I expect you to come to every class and participate. We will be doing in-class activities that will be graded; if you are not in class to participate you will not receive credit for the exercise. Should you miss a class, I do expect that you will make up *all* work *before* the next class session so that you don't hold yourself or anyone else back. ***It is your responsibility to find out what you need to do to catch up.***

Work Expectations: You are expected to be an active participant in class, complete all assignments, and to prepare for class by completing reading and/or written assignments. You are responsible for your own work.

You will be working in a team for several class activities and assignments. I expect everyone to pull their own weight- do not expect your group to do work for you! Groups will write work expectations for each member at the beginning of the larger group assignments so that everyone knows who is responsible for each component of an assignment. I will create discussion boards and team sites on the course ANGEL site to facilitate group work. If there are any problems with group dynamics, please bring them to my attention so we can work them out. When working in a group, others depend on you. Be professional and responsible- do not let your fellow team members down!

Discussions: We will be discussing policy and politics in this class and I encourage you to share your thoughts, questions, and opinions with the class. I expect students to respect each others' opinions no matter what their personal beliefs and political views may be. Keep in mind President Simon's statements on inclusion:

“At MSU we welcome a full spectrum of experiences, viewpoints and intellectual approaches because it enriches the conversation and benefits everyone, even as it challenges us to grow and think differently.”

Academic Honesty: Article 2.3.3 of the Academic Freedom Report states: “The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards.” The Department of Fisheries and Wildlife adheres to the policies on academic honesty specified in General Student Regulation 1.0, *Protection of Scholarship and Grades*; the all-University Policy on *Integrity of Scholarship and Grades*; and Ordinance 17.00, Examinations. (See *Spartan Life: Student Handbook and Resource Guide* and/or the MSU Web site www.msu.edu/unit/ombud/RegsOrdsPolicies.html)

You are expected to develop original work for this course. You are expected to complete all course assignments without assistance from any outside sources. Also, you are not authorized to use the www.allmsu.com web site or similar sites to complete any course work in this course. Your work must be your

own. Students who violate MSU rules may receive a penalty grade, including but not limited to a failing grade on the assignment or in the course.

Cell Phones: Please turn off all cell phones and personal electronic devices before class begins!

Late Assignments: Late assignments will **not** be accepted without a valid University excuse (see Attendance Policy, Excused Absences, and Make-up Work www.msu.edu/unit/ombud/excuses.html). I do not give or accept make-up work.

Changes to the Syllabus: This syllabus is subject to change; any changes will be discussed in class and posted on ANGEL.

Online SIRS forms: Michigan State University takes seriously the opinion of students in the evaluation of the effectiveness of instruction, and has implemented the SIRS (Student Instructional Rating System) process to gather student feedback. This course utilizes the “online SIRS” system. You will receive an e-mail sometime during the last two weeks of class asking you to fill out the SIRS online form at your convenience. Please note the final grade for this course will not be accessible on STUINFO during the week following the submission of grades for this course unless the SIRS online form has been filled out. You will have the option on the online SIRS form to decline to participate in the evaluation of the course – I hope, however, that you will be willing to give your frank and constructive feedback so that I may instruct students even better in the future.

How to Succeed in this Class

I want all of you to succeed in this class. I will do my best to work with you to help you achieve the goals of this class; however, a lot of the responsibility lies with you. Keep in mind that ***I do not give grades, you earn them.***

For many of my assignments, there is no “right” answer, but there are answers that are better than others. “Better” in this case means that the answer shows greater grasp of the material, more detail, more care in crafting a response, more organization which demonstrates you understand how things fit together. I want to see that you have gone that extra step in understanding the material in some depth. You will do much better in this course if you push yourself to dig deep into the material.

Here are some more tips for succeeding in this class:

- Proof your work. Don’t ever turn in a first draft (this one goes for any class). Do not rely on spell and grammar check. Proof read all of your writing assignments before turning them in and, if possible, have someone else proof it too.
- Pay attention to details. Sloppy work is a sign of sloppy thinking. If you were reading a report or paper and someone had multiple grammar and spelling errors, would you have faith in their work? Would you think “If they can’t even get the spelling right, how do I know they actually did the work and got the analysis right?”
- Ask questions. We’ve all heard the old phrase that the only stupid question is the one you don’t ask. Curiosity is a wonderful thing; do not be afraid to ask questions.
- Keep an open mind and be willing to learn. Many people get frustrated (or already are frustrated) about environmental laws and policies- they don’t seem to work, they don’t make sense, why can’t we just write a law that protects it all?, etc. Don’t let this stop you from exploring the world of water policy and management.
- Be an active participant in class activities. Just being in class is not participating!

Class Schedule

This schedule is subject to change; any changes will be discussed in class and posted on ANGEL.

Date	Unit	Topic	Reading*	
8/29	Introduction	Syllabus, introduction to course	Syllabus; Pielke, The Honest Broker, Ch. 1-3; Batie 2008	
9/3	Water Quality	Policy question & intro to case study	Vig and Kraft, Environmental Policy: New Directions for the Twenty-First Century, Ch 1; Ferrey, Environmental Law Examples and Explanations, Ch. 1	
9/5		Relevant laws: Clean Water Act	EPA Introduction to the CWA	
9/10		Clean Water Act	Ferrey, Environmental Law Examples and Explanations, Ch. 6	
9/12		Safe Drinking Water Act	EPA Introduction to the SDWA	
9/17		The Major Players; Case study summary & new case challenge	Vig and Kraft, Environmental Policy: New Directions for the Twenty-First Century, Ch 5-7	
9/19		Guest lecture: US Congress, Elle Irby		
9/24		Guest lecture: Fracking, Dr. Vlad Tarabara		
9/26		Project Progress Reports		
10/1		Water Quantity	Policy question & intro to case study	Case study materials on Angel
10/3			Relevant laws: water rights	Cech, Principles of Water Resources, Ch. 8
10/8	Riparian rights & prior appropriation		Ferrey, Environmental Law Examples and Explanations, Ch. 7	
10/10	How much water does a river need?		Poff et al. 1997; Richter et al. 1997	
10/15	The Major Players		Postel and Richter, Rivers for Life, Ch. 3; Cech, Principles of Water Resources, Chapter 10	
10/17	Science-policy interactions		Pielke, The Honest Broker, Ch. 6, 8-9; Nelson and Vucetich 2009	
10/22	Case study summary and new case challenge			
10/24	Project Progress Reports			
10/29	Water as Habitat: Aquatic ecosystems	Policy question & intro to case study	Case study materials on Angel	

Date	Unit	Topic	Reading*
10/31		Relevant laws: ESA	Ferrey, Environmental Law Examples and Explanations, Ch. 13
11/5		CZMA, Wild & Scenic Rivers; The Major Players	Ferrey, Environmental Law Examples and Explanations, Ch. 10; Cech, Principles of Water Resources, Chapter 12; USFWS, Interagency Policy to Incorporate Ecosystem Considerations in the Endangered Species Act
11/7		Watershed management, ecosystem management	Stanford et al. 1996; Baron et al. 2002; Ward 1998
11/12		Project progress reports	
11/14		Science-policy interactions	Cortner 2000; Pielke 2004; Sarewitz 2004
11/19		Case study summary and new case challenge; draft projects due	
11/21		Presentation rehearsals	
11/26		Presentation rehearsals, review of drafts	
11/28		No class- Thanksgiving break	
12/3		Presentations to service learning client(s)	
12/5		Conclusions, review, evaluations	
12/11	Final exam week	Final projects due	

* Read before coming to class.