

FW 868 Water Policy and Management Fall 2017

Instructor

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Meeting Time and Place

Tu Th 2:40-4:00pm
306 Natural Resources Building

Office Hours

Email or speak to me to set up an 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 and Safe Drinking Water Act. 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.

A key component of this course is working in a team on a service learning project. I have gathered questions from stakeholders in Michigan to serve as the basis for these projects. The service learning project will provide you with experience in working on a multidisciplinary team to tackle a real-world water policy or management issue.

Goals for the Course

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

- Describe the major US environmental laws related to water and explain their role in water policy and management.
- 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 D2L site. It is your responsibility to read all materials *before* the relevant class meetings. Please familiarize yourself with the D2L site for this course (<https://d2l.msu.edu/>).

Grades and Evaluation

Final grades will be based on the assignments, class participation, and a group service learning project. 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 (C or 2) work. Complete details about the assignments and service learning project will be provided in separate handouts, discussed in class, and posted on D2L. Your grade will be based on the following:

| Assignment | % of Final Grade | Points |
|----------------------------------|------------------|------------|
| Class activities | | |
| Assignments | 9% | 45 |
| Class participation | 14% | 70 |
| Service learning project: | | |
| Work plan | 14% | 70 |
| Progress reports (3) | 12% | 60 |
| Report Draft | 15% | 75 |
| Presentation | 16% | 80 |
| Final report | 20% | 100 |
| Total | 100% | 500 |

| Final Grade | Points | % of Total Points |
|-------------|--------|-------------------|
| 4 | A | 450-500 |
| 3.5 | A-/B+ | 425-449 |
| 3 | B | 400-424 |
| 2.5 | B-/C+ | 375-399 |
| 2 | C | 350-374 |
| 1.5 | C-/D+ | 325-349 |
| 1 | D | 300-324 |
| 0 | F | 0-299 |

Service Learning

As a part of this course, students will complete a group 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-related projects that 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 D2L.

Expectations

I expect a lot of my students 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
- be a good team member
- 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
- 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

Class Policies

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. You are responsible for adhering to all University policies on academic honesty and integrity (see <https://www.msu.edu/unit/ombud/academic-integrity/>).

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.

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 count toward your grade; if you are not in class to participate you will not receive credit for the exercise. Should you miss a class, I 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.***

Cell Phones: Please turn off all cell phones before class begins!

Changes to the Syllabus: This syllabus is subject to change; any changes will be discussed in class and posted on D2L.

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.”

MSU is dedicated to promoting inclusion and fostering diversity in all of its forms. Students in this class are expected to treat their peers with respect, civility, and consideration, and to participate in creating an inclusive and collaborative learning environment that embraces different beliefs, ideas, practices, and lives.

Late Assignments: Late assignments will **not** be accepted without a valid University excuse (see <https://www.msu.edu/unit/ombud/classroom-policies/index.html#attendance>). I do not give or accept make-up work.

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 D2L 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!

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 the assignments in this class, there is no “right” answer, but there are answers that are better than others. “Better” in this case means that the answer shows critical thinking with 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:

- Play well with others. For the rest of your career, you will be working with other people. Practice good team behavior now.
- Create a professional product for your service learning project.
 - Turn in professional, high-quality work. You are essentially working as a consultant for your stakeholder. Do your best to make this experience worthwhile for you and your stakeholder.
 - Be thorough and creative. This will not only generate a more useful product, but will expand your learning experience.
 - Proof your work. Don’t ever turn in a first draft. Do not rely on spell and grammar check. Proof-read all of your written 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 grammar or spelling errors, would you have faith in their work? Would you think “If they can’t even get the little things 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. If you aren’t comfortable asking a question in class, post it in a discussion on D2L, send me an email, or set up a meeting with me.
- 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 D2L. Materials for your required class prep will be updated on D2L throughout the semester, so check the site regularly.

| Date | Topic | Required Class Prep* | Service Learning Project (SLP) and Assignment Due Dates |
|---------------|---------------------------------------|---|---|
| 31-Aug | Intro to course | Dietz et al. 2003, Vorosmarty et al. 2010 | |
| 5-Sep | Making policy 101 | Vig & Kraft, Chapter 1; video on D2L; case study materials on D2L | Alternative SLP topic proposals due |
| 7-Sep | Water quality | EPA Intro to the Clean Water Act; Kimbrell Chapter 7 | |
| 12-Sep | Nonpoint source pollution | Review materials from Sept 7 | Choice of SLP topics due |
| 14-Sep | Wetlands | Kimbrell Chapter 8; case study materials on D2L | Assignment 1: WOTUS comments |
| 19-Sep | Collaboration | | SLP project plans due |
| 21-Sep | Drinking water | How EPA Regulates Drinking Water Contaminants; Understanding the Safe Drinking Water Act; case study materials on D2L | |
| 26-Sep | Water use: Riparian rights | Cech Chapter 8; Encyclopedia of Water Politics and Policy excerpt; case study materials on D2L | Assignment 2: Proposed class topics due |
| 28-Sep | Water use: Prior appropriation | Cech Chapter 8; Encyclopedia of Water Politics and Policy excerpt; case study materials on D2L | SLP progress report 1 due |
| 3-Oct | Groundwater management | Steinman et al. 2011; case study materials on D2L | |
| 5-Oct | Rivers and streams | Doyle 2012; Postel & Richter, Chapter 3; case study materials on D2L | |
| 10-Oct | Protecting aquatic species & habitats | Cech, Chapter 12; Kimbrell, Chapt 9 | SLP progress report 2 due |
| 12-Oct | Science-policy interactions | Kimbrell Chapter 1; Pielke, Chapters 1-3 | |
| 17-Oct | Transboundary water management | Armitage et al. 2015, Grover & Krantzberg 2015 | |
| 19-Oct | Water and climate change | National Climate Assessment, Ch 3 Water | |
| 24-Oct | Team-proposed topic | TBD | |
| 26-Oct | Progress Reports (presentations) | | SLP progress report 3 due |
| 31-Oct | Emerging issues in water policy | | Assignment 3: News & views article |
| 2-Nov | Collaboration & team work | | |
| 7-Nov | Team-proposed topic | TBD | |
| 9-Nov | Progress Reports | | Written SLP report drafts due |
| 14-Nov | Team-proposed topic | TBD | |
| 16-Nov | Report feedback | | |
| 21-Nov | Team work day | NO CLASS | |
| 23-Nov | Thanksgiving Break | NO CLASS | |
| 28-Nov | Presentation rehearsals & feedback | | SLP presentation drafts due |
| 30-Nov | Team presentations | | |
| 5-Dec | Team presentations | | |
| 7-Dec | Conclusions | | |
| 13-Dec | Finals week | | Final SLP reports with all supporting materials due |