Water Policy
Course Syllabus

NRSM 427 – Fall 2022
3 credits, CRN# 74047
Tues/Thurs 12:30 – 1:50 p.m.
Online: Zoom https://umontana.zoom.us/j/98219626375 passcode: 930166
In-person: Forestry 106

Instructor Info
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Passcode: 930166, or by appointment

General Course Information

Course description
Water is a unique natural resource. For example, water is essential: without water, most life on Earth could not exist. Water is ubiquitous: water can exist as a solid, liquid, or gas and it permeates every environment on Earth. Water is difficult to manage: the movement of water shows little regard for human designed political boundaries and often defies human desires even in the most highly-engineered environments (e.g., dams, canals). The ways in which human institutions (laws, policies, social norms) and governments have evolved to manage water can be as unique as the nature of water itself. This is especially apparent in the United States, where water is distributed unevenly and demand varies widely across many kinds of uses (e.g., industrial, agricultural, and municipal). Land ownership patterns, changing demographics, and the continuing evolution of U.S. livelihoods have all influenced the body of policy that seeks to address the multiple values of water: economic, ecological, cultural, physical, aesthetic, and spiritual.

The study of water policy in the U.S. is roughly the study of water law, although it is an inquiry that at times calls many other disciplines, including history, anthropology, geography, hydrology, and philosophy. In this course, we will explore the laws, policies, and judicial decisions that have and continue to shape patterns of water allocation and access in the U.S. and Montana. We will broadly review U.S. water law, paying particular attention to regional and interstate differences in both surface and groundwater appropriation schemes. We will also examine important intersections between water policy and other major bodies of U.S. law and policy, including the U.S.-tribal trust responsibility, the Endangered Species Act, and federal hydropower relicensing. In addition, we will pay special attention to unique aspects of Montana water law and policy, as well as current issues of local and regional importance, such as the Confederated Salish & Kootenai Tribes (CSKT) water compact and complex instream flow issues to benefit aquatic habitat. This course offers a distinctive opportunity to present and learn about policy in tandem with real-world examples and applications.
This is a reading intensive course with a significant amount of class discussion. Students will be asked to read and analyze a variety of texts, including statutes, court cases, peer-reviewed and law review articles, and popular media. This course is designed for students working towards a degree in environmental fields, such as natural resource conservation, wildlife biology, ecology, forestry, biology, hydrology, geology, soils, and environmental studies, as well as those studying environmental sociology, parks, tourism & recreation management, geography, philosophy, history, and environmental journalism; however, any student wanting a better understanding of water policy and management in the U.S. and beyond is welcome.

**Expected Learning Outcomes**

- Students will recognize and explore the basic sources of authority underlying water laws and policies, including the administration and management of water volumes and water quality (i.e., constitutional, statutory, administrative, and common law authorities).

- Students will identify the properties that make water a unique resource to govern/manage and then connect these to the ways in which the highly-developed legal system of the U.S. has adopted laws and policies to control water through use and conservation paradigms.

- Students will articulate various approaches and strategies to water distribution and water quality control, including broad legal doctrines (e.g., riparian rights, prior appropriation) and specific policy instruments (e.g., regulation, market mechanisms).

- Students will evaluate and critique the assumptions, strengths, and weaknesses of various existing water policies and current water management strategies as well as potential reform measures and political obstacles to enacting reform measures.

- Students will imagine future water policy innovations in light of changes in the distribution and timing of precipitation and snowmelt and the changing demands for water resources at regional, state, national, and global scales.

- Together, the instructor and students will challenge deeply held assumptions about the role of water in the U.S. and beyond by exploring water as a regulated natural resource, as well as a fundamental human right that is integral to each of our lives.

- Students will analyze and articulate the nature of conflicts (and potential conflicts) over water in the U.S. and globally, including historical and institutional roots of conflict (e.g., American federalism, tensions between branches of government, political-economic power, geography, differences in values).

- Students will explore the many human connections to water, including emotional, spiritual, cultural, biophysical, and social connections; students will articulate values of water beyond its commodity worth as a regulated natural resource.

- Students will analyze various media reports on current or pending water laws and policies, and: (1) critique the accuracy of reporting in terms of the information conveyed on the potential impacts or application of a specific water law or policy; and (2) identify
and synthesize reliable sources of information available to further support, critique, or clarify the media report.

**Required Text**

2) Various weekly readings posted to Moodle (see accompanying course schedule)

**Student and Instructor Expectations**

**Course Format**
This course is being taught in a blended format, meaning that about ¼ of it will be in-person, and the remainder will be virtual (using Zoom). The in-person classes are highlighted and identified on the course schedule, but please check Moodle regularly for updates. I will do my best to remind students of upcoming in-person classes; so please look out for reminders and updated information.

**Participation and Attendance**
The complexity of water policy can be energizing—and our class discussions will often reflect that. We cover a lot of ground in class and to facilitate this, I ask that students read the assigned readings prior to class and *be prepared to discuss the readings* in class. The text and concepts may be new and challenging; at the very least, I ask that you bring your questions from the readings and willingly share them with the class. I seek input from all students and I will likely ask students questions to solicit input and to assess comprehension of difficult topics. I reserve the right to initiate daily or weekly reading quizzes if I find that students are generally unprepared for class. Any student who misses class will be held responsible for all materials covered and all announcements made during their absence. If your absence was University-approved, you are eligible to make up any missed in-class work collected for points. Life happens, and I recognize that. I am generally flexible about unforeseen absences and make-up work as long as you are transparent and diligent in communicating with me.

The UM “Class Attendance/Absence Policy” can be found in the [UM Catalog Academic Policies and Procedures](https://catalog.umt.edu/academics/policies-procedures).

**Respect, Inclusiveness and Diversity of Thoughts, Ideas and People**
I believe and act upon the idea that all students are entitled to and deserve respect, courtesy, and tolerance, regardless of their race, background, religious affiliation, gender, sexual preference, disability or any other perceived difference. Likewise, faculty, staff, and fellow students deserve the same treatment from other students. Therefore, within the bounds of this course and professional responsibilities as a university instructor, I make every effort to promote and create a safe space for diverse thoughts, regardless of the form of communication. I ask you to do the same.

**Academic Honesty**
All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the [Student Conduct Code](http://www.umt.edu/student-affairs/community-standards/default.php).
**Plagiarism**
I will not tolerate plagiarism in any form. Students need to be familiar with plagiarism and how to properly cite references and attribute the ideas of others to original sources in their work.

The following is taken directly from the UM Catalog Academic Policies and Procedures (https://catalog.umt.edu/academics/policies-procedures):

“Plagiarism is the representing of another’s work as one’s own. It is a particularly intolerable offense in the academic community and is strictly forbidden. Students who plagiarize may fail the course and may be remanded to Academic Court for possible suspension or expulsion.

Students must always be very careful to acknowledge any kind of borrowing that is included in their work. This means not only borrowed wording but also ideas. Acknowledgment of whatever is not one’s own original work is the proper and honest use of sources. Failure to acknowledge whatever is not one’s own original work is plagiarism.”

**Equal Access**
The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and the Office for Disability Equity (ODE). If you anticipate or experience barriers based on disability, please contact ODE by phone at (406) 243-2243, by email at ode@umontana.edu, or visit the Office of Disability Equity (https://www.umt.edu/disability/) online for more information. Retroactive accommodation requests will not be honored, so please, do not delay. As your instructor, I will work with you and ODE to implement an effective accommodation, and you are welcome to contact me privately if you wish to ask questions and discuss.

**Basic Needs Security Statement**
Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Office for Student Success (http://www.umt.edu/oss/) for support. Furthermore, please notify me if you are comfortable in doing so. This will enable me to provide any resources that I may possess.

**Safety Statement**
This class will be conducted using a blended format of virtual and in-person instruction (approximately 75% virtual and 25% in-person). For the safety of all of us, please follow this guidance if you become sick:

- If you feel sick and/or are exhibiting COVID-19 symptoms, **please don’t come to an in-person class.** Contact the Curry Health Center at (406) 243-4330.

- If you are required to isolate or quarantine, you will receive support in the class to ensure continued academic progress. Please initiate and maintain communication with me, and I will make sure you receive the relevant notes, materials, and anything else you need to stay in good standing.

- If you have not done so, please consider getting the COVID-19 vaccine/boosters. Contact the Curry Health Center with concerns or questions.
Assignments & Assessment

Assessment of student learning is important, but only one part of the course. While this course is not yet required for any undergraduate program of study, it can fulfill a policy requirement for some majors, e.g. WBIO, ECOR, RSCN. The course structure provides flexibility in topics covered and uses multiple forms of assessment to evaluate student learning. Throughout the semester, I will also provide students with an opportunity to evaluate the class structure, content, assessment strategies, and my performance in an effort to improve your learning experience during course progression.

Midterm & Final Exams

There will be two exams in this course consisting of definitions, short answer, and essay questions. One exam will be given roughly mid-semester and the other during our final exam period. Make-up exams will only be scheduled for University-excused absences on the day of the exam and they will be re-scheduled at my convenience, before the in-class exam if possible. Please contact me ASAP if you know you will have a conflict with an exam in this class.

In-class Assignments

I will facilitate regular in-class activities for you to become more familiar with the concepts surrounding water policy. Participation in these in-class assignments is mandatory and I will grade these based on observed level of participation and produced content. The number and type of activities will vary, and instructions will be provided in each class. In addition to this, I will occasionally give quizzes at the beginning of class to measure your progress with and comprehension of the readings. Missed quizzes and writing assignments can be made up for a University-excused absence. Cumulatively, these quizzes and in-class activities will make up roughly 25 points of your final grade (half of your participation grade). I allow students to miss up to two (2) in-class quizzes or writing assignments without penalty. I do not give extra credit in this course, but I will note your level of participation in class and your diligence in keeping up with the readings as judged by your performance on in-class quizzes and writing assignments. For example, a final grade of 89.4% is a B+ unless a student has not missed a quiz and has provided thoughtful, accurate answers on in-class writing assignments—in this case I may consider this grade an A-.

Water Policy Engagement Assignments

There are three major writing assignments in this course, all of which will provide you an opportunity to explore specific areas of U.S. and MT water policy. Details are provided on the Assignments tab of Moodle and students will submit these assignments via Moodle.

1) Administration of water rights in another state (2-3 page paper).
2) Current events and issues (2-3 page paper and 5-minute presentation to the class).
3) Water policy practitioners. Interview with a water professional of your choice and a 2-3 page reflection paper that includes a connection to water policy.

Important details about writing for this course

When you cite a resource (e.g., course text, newspaper, magazine, peer-reviewed or law review articles), please list the reference at the end of your reflection essay following APA citation guidelines. The Purdue University Online Writing Lab website has great video tutorials and written guidance for APA (as well a lot of other helpful information about writing!). The ability to write clearly and concisely is an underappreciated and underestimated skill, so I encourage you
to use the assignments in this course as an opportunity to practice and refine your writing process.

**Grading Scale & Points**
This course is graded on the traditional A – F letter grade scale only, it is not offered under the credit/no credit option. Upon completion of the course, your points earned on exams and policy reflection papers will be expressed as a percentage of total points possible in the course and translated into a letter grade as follows:

- A 93-100%; A- 90-92%;
- B+ 88-89%; B 83-87%; B- 80-82%;
- C+ 78-79%; C 73-77%; C- 70-72%;
- D+ 68-69%; D 63-67%; D- 60-62%
- F 59% and below

**Total points possible in the course = 300 points**
- Water Policy Engagement Assignments: 50 points each (150 total)
- Midterm Exam: 50 points
- In-class Activities and participation (class attendance, participation): 50 points
- Final Exam: 50 points
- Graduate increment (graduate students only): 50 points

**Graduate Increment**
Since this course is listed as a U/G (undergraduate and graduate) course at the University of Montana, graduate students can take the course as offered (NRSM 427) for credit with the completion of additional work known as a “graduate increment.” The graduate increment for this course will consist of a self-guided research and writing activity. You can pursue any topic or issue you would like, but I encourage you to identify and explore links between water policy and your thesis so that this assignment will complement your graduate studies. More details about the objectives, expectations, and timeline can be found on Moodle. The graduate increment is worth an additional 50 points of the graduate student’s grade.

**Field Trip**
There is one required field trip scheduled in the course for the afternoon of Thursday, September 29th. We will depart from UM at 12:00 pm and return at approximately 4:30. If this trip conflicts with other courses or commitments, please make arrangements in advance so that you can attend. Field trip attendance will count as an in-class activity.

**Course Readings & Topic Schedule**
This course is designed as a series of sections or “topics” that are flexible and can be moved around. We will work through the material at a pace dictated (to some extent) by the interests of the class. We may spend one class period on a specific topic, or we may spend several—this will be determined by student engagement and the relevance of the topic to understanding critical water policy issues in Montana and the greater U.S. West. Please be attentive to announcements in class and on Moodle as I update the schedule of assigned readings. I will post and update the reading schedule on Moodle regularly as well as announce changes in
class. Please be sure you are working off the most updated schedule in Moodle or bring a copy of the schedule with you to class to record adjustments.

**Course Topics & Order of Presentation**
1. **Water Rights** – Riparian Rights & Prior Appropriation Doctrine
2. **Montana Water Administration** – the Montana Water Use Act of 1973 (MWUA); Conjunctive Management of Surface and Groundwater in MT; Irrigation and role of water commissioners
3. **Federal Reserved Water Rights** including Native American Reserved Water Rights and Indigenous Water Rights
4. **Navigable Waters & The Public Trust Doctrine** – Federal definitions, State limitations
5. **Miscellaneous Water Policy** – Interstate Compacts; Federal hydropower licensing, relicensing, and dam removal; U.S. Water Treaties; Montana’s Natural Streambed and Land Preservation Act.
6. **Environmental Legislation and Water** – The Clean Water Act (CWA) and The Endangered Species Act (ESA)