

Water Policy in the American West

Course Syllabus

NRSM 391 – Spring 2016

3 credits, CRN# 34975

Tues/Thurs 8:10-9:30am

Health Sciences Building Room 207

Instructor Info:

Brian C. Chaffin, Ph.D.

Assistant Professor

College of Forestry & Conservation

Clapp Building (CHCP) #409

406.243.6575

brian.chaffin@umontana.edu

Office Hours

Wed 1:00-2:00pm

Thurs 2:30-4:00pm

Or by appointment

Course Description

Water is a unique resource. For example, water is essential: without water, human 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 contrived political boundaries and often defies human desires even under 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 resources can be as unique as the nature of water itself. In very few places is this more apparent than in the American West. The collision of a vast arid landscape, contested land ownership patterns and the continuing evolution of Western livelihoods has influenced a body of policy that attempts to deal with the multiple values of water: economic, ecological, cultural, physical, aesthetic and even spiritual.

The study of water policy in the American West is roughly the study of water law, although it is an inquiry that at times calls on the study of history, anthropology, geography and philosophy, among other disciplines. In many ways, water law is the study of property law—but not property in the physical sense—instead the rights to use or allocate use of water. 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 arid regions of the U.S. The course will offer a general introduction to U.S. water law, specifically highlighting regional and interstate differences in both surface and groundwater appropriation schemes. We will also treat

important intersections between western water policy and other major bodies of U.S. law and policy including the U.S.-tribal trust responsibility, the Clean Water Act and federal hydropower relicensing. In addition, I will pay special attention to unique aspects of Montana water law and policy as well as current issues of local and regional importance (e.g., Confederated Salish & Kootenai Tribes water compact; instream flow issues in the Bitterroot Valley).

This is a reading intensive course with a significant class discussion component. Students will be required 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 any and all environmental fields including but not limited to natural resource conservation, wildlife biology, ecology, forestry, biology, hydrology, geology, soils and environmental studies—as well as environmental sociology, parks, tourism & recreation management, geography, philosophy, history—and those who just want a better understanding of water in the West.

Expected Learning Outcomes

- Students will gain an understanding of essential and unique aspects of Western U.S. water policy and be able to articulate these aspects verbally and in writing, including:
 - Basic sources of authority for water law, administration and management (i.e., constitutional, statutory, administrative, common law)
 - Various approaches or strategies to water policy problems including policy instruments such as regulation or market mechanisms, etc.)
 - The factors that make water a unique resource to govern/manage and the ways in which our highly-developed legal system has adjusted to control water

- Students will apply a working knowledge of water policy to management settings by:
 - Analyzing water allocation schemes for both surface and groundwater with specific emphasis on the processes for water allocation in Montana
 - Identifying and explaining the root sources of difference in water allocation schemes in other U.S. states and regions as well as in international contexts

- Students will be able to analyze and dissect case studies in U.S. water management, as the complex negotiation of tradeoffs between human values and ecosystem services. During the course, students will be asked to:
 - Articulate the nature of conflict (and potential conflict) over water in the U.S. West including historical and institutional roots (e.g., American federalism, tensions between branches of government, political-economic power, etc.)
 - Evaluate the assumptions, strengths and weaknesses of various existing water policies as well as potential reform measures (and the real-world political obstacles to enacting reform measures)

- Together, the instructor and students will challenge deeply held assumptions about the role of water in the U.S. West and beyond, by:
 - Exploring water, both as a regulated natural resource, but also as a fundamental human right that is integral to each of our lives
 - Engagement in activities and personal reflection aimed at discovering our emotional, spiritual, cultural, biophysical and legal connections to water

Required Text

- 1) Getches DH, Zellmer SB, Amos AL. 2015. *Water Law in a Nutshell*. 5th Edition. West Academic Publishing.
- 2) Reisner, M. 1986. *Cadillac Desert: The American West and its disappearing water*. Revised and Updated Edition (1993). Penguin Books.
- 3) Readings posted to Moodle as assigned.

**Both books are available at the UM Bookstore, but may be found elsewhere. It is important that you purchase the "Revised and Updated" Edition of Cadillac Desert, not the original publication as there have been some important updates. I prefer that you use the 5th Edition of Water Law in a Nutshell, but you may use earlier additions if necessary for financial reasons. Please note, page numbers for readings will be different in different editions of these texts; it will be your responsibility to follow along if you use alternate editions.*

Student & Instructor Expectations

Participation

My courses are fueled by class discussion. Thus, I expect *all* students to not only have read the reading assignments prior to class, but *be prepared to discuss the readings* on a regular basis. I seek input from the entire class, not just from a few committed students, and I will randomly call on students to solicit their input or to assess comprehension of difficult topics. I reserve the right to initiate daily reading quizzes if I find that students are generally unprepared for class. Therefore, it is in the collective interest of the class to be prepared and participate. Any student who misses class will be held responsible for all materials covered and all announcements made during his/her absence. Do not ask me for missed handouts or about material that was covered unless the absence was University-approved.

The UM "Class Attendance/Absence Policy" can be found in the [UM Catalog \(2015-2016\) Academic Policies and Procedures](http://www.umt.edu/catalog/academics/academic-policy-procedure2.php) (<http://www.umt.edu/catalog/academics/academic-policy-procedure2.php>).

Respect, Inclusiveness and Diversity of Thoughts, Ideas and People

In teaching courses, 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 my courses 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 that you 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/vpsa/policies/student_conduct.php) (http://www.umt.edu/vpsa/policies/student_conduct.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 the [UM Catalog \(2015-2016\) Academic Policies and Procedures](http://www.umt.edu/catalog/academics/academic-policy-procedure2.php) (<http://www.umt.edu/catalog/academics/academic-policy-procedure2.php>):

“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 [Disability Services for Students](http://www.umt.edu/dss/) (<http://www.umt.edu/dss/>) (DSS). If you think you may have a disability adversely affecting your academic performance, and you have not already registered with DSS, please contact DSS in Lommason 154 or 406.243.2243. I will work with you and DSS to provide an appropriate modification.

Assignments & Assessment

Assessment of student learning is important, but only one part of the course. As this course is not yet required for any undergraduate program of study, each of you have some motivation to learn about water in the West. To accommodate this, I have structured the course to provide

significant flexibility in topics covered and will employ multiple forms of assessment to evaluate student learning. Throughout the semester, I will also provide students with the opportunity to evaluate the class structure, content, assessment strategies and my performance in order to improve your learning experience *during* the progression of the course.

Midterm & Final Exams

There will be one regular “midterm” exam in this course consisting of short answer essay questions. I will post potential test questions on Moodle at least two weeks prior to the exam. Make-up exams will only be given for University-excused absences on the day of exam and they will be re-scheduled at my convenience.

We will not have a traditional final exam, but we will host presentations of student papers during that time period and thus attendance at the final exam period is **mandatory**. The final exam period is scheduled for **Tuesday May 10th from 8:00am to 10:00am**. More details on the requirements for this period will be given in class and posted to Moodle.

Weekly Water Quizzes & In-class Assignments

Each week I will provide in-class activities for you to become more familiar with the concepts surrounding Western water policy. Participation in these in-class assignments is mandatory and will be graded based on observed level of participation and produced content. The number and type of activities will vary and explicit instructions will be provided in 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. Students will not receive credit for in-class assignments and quizzes missed due to non-approved absences. I will assign individual makeup assignments for those students who miss in-class assignments and quizzes for University-approved absences. It is the students’ responsibility to contact me for makeup assignments prior to or immediately following the absence.

Water Policy Reflection Papers

During the semester, I will ask you to complete two (2) “water policy reflection papers” consisting of **1-2 page, single spaced, typed** responses to a writing prompt that I will provide to you at least two weeks before the paper is due. I expect you to respond to the writing prompt or question based on a combination of your assessment of the readings, personal experience and additional research or reading as necessary. In some cases I will ask you for your opinion, but I will require you to support your opinion with evidence from the text or other sources. When you cite a resource (e.g., our text, newspaper, magazine, peer-reviewed or law review articles), please list the reference at the end of your reflection essay following APA citation guidelines. A great tutorial for how to format citations in APA style can be found on the [Purdue University Online Writing Lab website](https://owl.english.purdue.edu/owl/resource/560/1/) (https://owl.english.purdue.edu/owl/resource/560/1/). Due dates for these papers will be **March 3rd** and **April 21st**. Some important details about the policy reflection papers:

1. Papers can be handed in in-class the week they are due or turned in via Moodle (late work will not be accepted without written notification of a University-excused absence).
2. DO NOT hand in more than one piece of paper; practice writing concisely and to the point; if you spill over to a second page, make sure it is printed on the back of the first.
3. Use 12-pt font, no bigger, no smaller.
4. Put your Name, 790# and Assignment number at the top of the page like this:

First and last name
790-XXX-XXX
Policy Reflection Paper #1

Water Policy “Blue” Paper

You may have heard of a “white paper” before—an authoritative, informative or position (argument) paper about a specific topic—well, in this class I am asking you to prepare a “Blue” paper instead! The blue paper assignment will consist of a **10-15 page double-spaced, typed** research paper and argument paper about a specific topic in of your choosing that relates to Western water law, policy or management. In the paper, I will ask you to introduce a water policy problem, program, potential reform or other issue; present sufficient background to convey the problem; and then suggest potential solutions to the problem or critical commentary on a specific program or reform strategy. The paper itself will be due at the end of the semester (likely April 28th), but there will be several assignments due throughout the semester that will help you craft a paper to explore a question about water policy in the American West of personal or professional interest to you. Topics are limitless and I will post a list of potential topics on Moodle during the first week of class. We will discuss this paper assignment more in class and I will post additional instructions to Moodle. For now, below are due dates for specific blue paper assignments. The purpose of these assignments is for me to provide you with ample feedback and the opportunity to improve your Blue paper as you progress in research and writing.

1. **February 4th**: Identify a topic area and 5 sources for background reading (5 points)
2. **February 16th**: Submit 1-2 research questions that will guide your Blue paper (10 points)
3. **February 25th**: Identify 10 sources to inform your research and Blue paper (10 points)
4. **March 31st**: Annotated outline of Blue paper background and argument (25 points)
5. **May 3rd**: Blue paper due (50 points)
6. **May 10th**: Student presentations on Blue paper topics (25 points)

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 = **400 points**

- Midterm Exam: 100 points
- Water policy reflection papers: 2 @ 50 points = 100 points
- Participation score: 75 points
 - Determined by a combination of scores on quizzes (30 points), in-class assignments (30 points) and instructor determined level of engagement in class discussions (15 points)
- Blue paper pre-assignments: 50 points
- Final “Blue” paper: 50 points
- Final exam/Blue paper presentations: 25 points

Course Readings & Topic Schedule

I have designed this course to be presented in sections of “topics” that are flexible and can be moved around. We will work through the material at a pace dictated by the interests of the class as a whole. We may spend one class period on a specific topic, or we may spend two weeks—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 this reading schedule in 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 in order to record adjustments.

Tentative Course Topics & Order

Class	Topic	Reading/Assignment
1/26	Introduction to Water in the Western U.S.	Review syllabus

1/28	Introduction (cont.) & Water Allocation Systems	<i>Water Law</i> pp. 1-14 <i>Cadillac Desert</i> Introduction Worster (1985) pp. 3-11 (Moodle)
2/2	Riparian Rights	<i>Water Law</i> pp. 15-70
2/4	Prior Appropriation I: Introduction, Intent, Diversion & Beneficial Use	<i>Water Law</i> pp. 71-128 <i>Cadillac Desert</i> Ch. 1 Blue paper topic & 5 sources DUE
2/9	Prior Appropriation II: Perfecting and Administering Water Rights; Adjudication; Transferring Water Rights	<i>Water Law</i> pp. 129-186
2/11	Hybrid Rights Systems: The Rise of California	<i>Water Law</i> pp. 187-203 <i>Cadillac Desert</i> Ch. 2
2/16	Montana Water Act	Montana Water Act (Moodle) Blue paper research questions DUE
2/18	Groundwater I	<i>Water Law</i> pp. 215-250 <i>Cadillac Desert</i> Ch. 3
2/23	Groundwater II: <i>Guest speaker</i> MT DNRC	<i>Reading TBD</i>
2/25	Conjunctive Management	<i>Water Law</i> pp. 251-275 <i>Cadillac Desert</i> Ch. 4 Blue paper sources (10) DUE
3/1	Conjunctive Management II	<i>Cadillac Desert</i> Ch. 5
3/3	Navigable Waters of the U.S.	<i>Water Law</i> pp. 297-348 <i>Cadillac Desert</i> Ch. 6 Water policy reflection paper #1 DUE
3/8	Instream Flows	<i>Reading TBD</i>
3/10	Instream Flows II: <i>Guest speaker</i> Clark Fork Coalition	<i>Reading TBD</i>
3/15	Federal Reserved Rights	<i>Water Law</i> pp. 349-359, 374-402
3/17	Native American Reserved Water Rights	<i>Water Law</i> pp. 360-373
3/22	Native American Water Rights Settlements & the Montana Compact Commission	Cosens 2003 (Moodle) Cosens 2007 (Moodle)
3/24	Water in the Public Trust	<i>Reading TBD</i>
3/29	Midterm Review	
3/31		Midterm Exam Blue paper annotated outline DUE
4/12	Interstate Waters & Interstate Compacts	<i>Water Law</i> pp. 403-428 <i>Cadillac Desert</i> Ch. 8
4/14	International Issues for Western Water	<i>Water Law</i> pp. 428-436 <i>Cadillac Desert</i> Ch. 9

4/19	Federal Hydropower Licensing & Relicensing	Amos 2014 (Moodle)
4/21	Dam Removal	Blumm & Erickson 2012 (Moodle) Water policy reflection paper #2 DUE
4/26	Wicked Problems in Water Policy: The Klamath River Basin case study	Spain 2007 (Moodle) Chaffin et al. 2014 (Moodle)
4/28	California Water Issues	<i>Cadillac Desert</i> Ch. 10 Joan Didion's essay "Holy Water"
5/3	Water Institutions and Collaborative Water Policy	<i>Cadillac Desert</i> Ch. 12 Blue paper DUE
5/5	Wrap up & Final Discussion	<i>Cadillac Desert</i> Epilogue
5/10	8:00-10:00am: presentations of Blue papers—roundtable discussion of future issues in Western water policy	Final Exam