

NRSM 121S - Nature of Montana

Fall, 2016

Instructors

Dr. Alexander L. Metcalf

Office Location: Room 440, Charles H. Clapp Building

e-mail address: alex.metcalf@umontana.edu

Office hours: Tuesday & Thursday, 1:00 – 2:00PM

Friday, 2:00 – 3:00PM

AND by appointment

If you need to meet outside my office hours, please send me an e-mail and suggest at least 2 other times that fit your schedule.

Christine McManamen

Office Location: 460, Charles H. Clapp Building

e-mail address: christine.mcmanamen@umontana.edu

Office hours: Monday & Wednesday, 11:00AM – 12:00PM

AND by appointment

Meeting Times 10:00 – 10:50 a.m. Monday, Wednesday, & Friday

Meeting Place Natural Sciences Building, Room 307

Credits Three (3.0)

Course Overview

The course will provide a foundation for students to understand the dynamics of human relationships with the environment. It will offer a unique combination of material covering environmental ethics, ecological processes, natural history, and current social conflicts regarding human uses of natural resources. It will use the ecology of western Montana and topical issues in resource management as focal points for learning.

The course aims to develop an “environmental literacy,” so participants can acquire a foundation of knowledge to address the enormous challenges facing the human relationship with nature. Students will receive an introduction to the natural history of Montana as well as a social history of human land use practices, population/growth impacts, and policy trends in the interior West. A particular focus will be placed on current environmental controversies – such as endangered species management, water policy, and wildfire management - to understand how social demands and political processes affect natural systems. Because of the breadth of information covered, this will be a rigorous course. Students will be expected to be familiar with foundational concepts and theories from social science and natural science, such that they understand the underpinnings of natural resources issues and conflicts that stretch from Montana across the globe.

Lecture materials will follow a major, established course text on the challenges of sustainable natural resources management (Chiras and Reganold’s, *Natural Resource Conservation*, the required text for the course). Additional selected readings will also be assigned to offer specialized insight into conservation dilemmas in the western United States. Lectures will highlight ongoing natural resource debates within the region to illustrate the multiple features and disciplinary integration of natural and social sciences.

Course Objectives

This interdisciplinary course will examine a series of concepts in the management of natural resources. Its objectives are threefold:

1. Recognize the impacts of human demands on natural resources and ecosystems;
2. Become familiar with the policies, economic factors, and social dynamics affecting major natural resources issues in the western United States; and
3. Understand foundational scientific principles of ecology, environmental processes, and natural resources management

Social Science Learning Objectives

1. Describe the nature, structure, and historical development of human behavior, organizations, social phenomena, and/or relationships;
2. Use theory in explaining these individual, group, or social phenomena; and
3. Understand, assess, and evaluate how conclusions and generalizations are justified based on data

Required Technology

This course will employ two online supplements: [Moodle](#) and [TopHat](#). You cannot succeed in this course without engaging BOTH of these tools.

[Moodle](#) is the University of Montana online course management system ([Moodle Link](#)). Sign in and find our class using 'NRSM 121.' Any changes to the course calendar and additional assignments will be posted exclusively on Moodle. All supplemental readings will be posted on Moodle.

[TopHat](#) is an app for your smartphone, tablet, or laptop (search for "TopHat" in the App or Android store). You must obtain a TopHat subscription for this class at [TopHat Link](#) before signing into the app. Subscriptions are \$24 (for four months) or \$36 (for 1 year) – either will work for this course. Once you have created an account and signed in, search for our course using the **Join Code 834651**. We will use TopHat to take attendance, answer sample exam questions in class, and engage in class discussions. *If you do not have a smartphone, tablet, or laptop, you can still participate using a normal flip-phone. If you do not have any of these technologies, TopHat will waive the subscription fee so you can purchase a disposable phone for the semester. You must bring your cell phone (or other technology used to access TopHat) to class every day.*

Required Texts (Available in the Campus Bookstore OR anyplace online)

Chiras, Daniel and John Reganold. 2010. *Natural resource conservation (10th edition)*. San Francisco, CA: Benjamin Cummings/Pearson. 659 p.

Other materials as assigned – available on course Moodle site.

Student Assessment and Expectations

This class is offered for traditional letter grade only, it is not offered under the credit/no credit option. This course will be graded on the following scale: 93-100 (A), 90-92 (A-), 87-89 (B+), 83-86(B), 80-82 (B-), 77-79 (C+), 73-76 (C), 70-72 (C-), 60-69 (D), <60 (F).

Students will be evaluated based on performance in five areas:

Assignment/Evaluation type	Date	Proportion of grade
Attendance	<i>Everyday</i>	10 pts
Quizzes & participation	<i>Everyday</i>	15 pts
Exam #1	September 30	25 pts
Exam #2	November 7	25 pts
Final examination	December 20, 8:00AM	25 pts
TOTAL		100 pts

To be successful in this class, you will be expected to:

- attend every class period
- complete all readings prior to each class (basic readings listed on syllabus; supplemental readings on Moodle)
- actively participate in class lectures, polls, and discussions (both online and in person), and
- demonstrate understanding of readings and lecture material via two exams and the final exam.

Attendance is required by University Policy. If you must miss a class due to an emergency, you must contact me **beforehand** with a legitimate reason. Legitimate reasons include such things as: illness *with a note from Health Center* or

Doctor, field trips in another courses *with a note from your professor*, or other emergencies *with documentation*. If you miss a class, you are still responsible for the material (yes we covered something important). Please ask a classmate for the information ***before*** visiting with me during office hours. Opportunities to make up attendance or in-class participation points will only be offered to students who contact me ***beforehand*** and have a legitimate reason for missing class. All exam dates are final.

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](#). Plagiarism or cheating will not be tolerated; all violations will result in reduced credit for the assignment, zero credit for the assignment, zero-credit for the course, and/or reference to the Provost and Vice President for Academic Affairs.

Warning: Do NOT send attendance codes or in-class participation information to others via text, snapchat, or any other means. If you send or receive information intended to falsely represent your attendance or participation, this is cheating and you will automatically receive a zero for ***ALL*** attendance and/or participation for the ***ENTIRE*** semester.

Students with Disabilities Statement

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students (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.

Important Dates Restricting Opportunities to Drop a Course in Fall Semester 2016

Deadline	Description	Date
To 15 th instructional day	Students can drop classes on Cyberbear with refund	September 19 = last day
16 th to 45 th instructional day	Drop requires form with instructor and advisor signature, a \$10 fee from registrar’s office, student will receive a ‘W’ on transcript, no refund.	September 20 through October 31
Beginning 46 th instructional day to end	Students are only allowed to drop a class under very limited and unusual circumstances. Not doing well in the class, deciding you are concerned about how the class grade might affect your GPA, deciding you did not want to take the class after all, and similar reasons are not among those limited and unusual circumstances. If you want to drop the class for these sorts of reasons, make sure you do so by the end of the 45th instructional day of the semester. Requests to drop must be signed by the instructor, advisor, and Associate Dean and a \$10 fee applies.	November 1 through December 12

Other Course Policies

Food is allowed in class, but please be polite. Please avoid odiferous ingredients, loud chewing or packaging, and items that might spill and/or otherwise cause disruption or damage.

UM is a tobacco free campus. This includes smokeless/chewing tobacco, vaporizers, and e-cigarettes. Do not bring any of these products to class or you will be asked to leave.

Please do not use your cell phone in any way that might disrupt class; a good first step is muting the volume or turning your phone to vibrate.

Tentative Course Schedule

All supplemental readings will be posted on Moodle
Any course schedule updates will be posted on Moodle

Week 1 – Natural Resource Conservation

Aug. 29	Welcome and course purpose – “Finite planet”
Aug. 31	Course overview and technology
Sept. 2	Introduction to conservation and natural resource management (Ch. 1, 1-13)

Week 2 – Human Populations

Sept. 5	NO CLASS – Labor Day
Sept. 7	Human populations (Ch. 4, 86-97)
Sept. 9	Human hunger (Ch. 5, 105-119)

Week 3 – Economics and Ethics

Sept. 12	Demographics and foreign aid (see Moodle)
Sept. 14	Sustainable economies (Ch. 2, 25-39)
Sept. 16	Why care about Nature? Environmental ethics and critical thinking (Ch. 1, 13-22 & Ch. 2, 39-45)

Week 4 – Forestry and Fire Management

Sept. 19	Forest fire dynamics I (Ch. 14, 387-390)
Sept. 21	Forest fire dynamics II (see Moodle)
Sept. 23	Sustainable forestry in the western US (Ch. 14, 371-387)

Week 5 – Water Systems and Use (Exam)

Sept. 26	Western US water issues (Ch. 10, 226-239)
Sept. 2/Aug 8	Water cycle and availability (Ch. 11, 257-266 & 272-293)

Sept. 30 EXAM #1

Week 6 – Property & Resource Management

Oct. 3	Public land management (see Moodle)
Oct. 5	Private land conservation (see Moodle)
Oct. 7	Community-based natural resource management (see Moodle)

Week 7 – Energy; Ecology

Oct. 10	Non-renewable energy (Ch. 22, 563-593)
Oct. 12	Sustainable energy (Ch. 23, 597-620)
Oct. 14	Principles of ecology (Ch. 3, 50-73)

Week 8 – Wildlife

- Oct. 17 Ecological systems
- Oct. 19 Soil conservation and sustainable agriculture (Ch. 6, 123-138; Ch. 7, 141-154)
- Oct. 21 Rocky mountain flora and fauna (see Moodle)

Week 9 – Soils

- Oct. 24 Ethics of biodiversity protections (Ch. 15, 406-425)
- Oct. 26 Wildlife management in the western US (Ch. 16, 429-456)
- Oct. 28 Fisheries management in the western US (Ch. 12, 306-331)

Week 10 – Recreation and Tourism

- Oct. 31 Wildlife Values (see Moodle)
- Nov. 2 Nature-based and ecotourism
- Nov. 4 Recreation management in the western US (see Moodle)

Week 11 – Consumptive Recreation (Exam)

Nov. 7 Exam #2 (NOTE: VOTE TOMORROW)

- Nov. 9 Hunting in the western US (see Moodle)
- Nov. 11 Angling in the western US (see Moodle)

Week 12 – Global warming and climate change I

- Nov. 14 NO CLASS – VETERAN'S DAY
- Nov. 16 Global climate (Ch. 19, 513-527)
- Nov. 18 Human impacts of climate change (see Moodle)

Week 13 – Global warming and climate change II

- Nov. 21 Ecological impacts of climate change (see Moodle)
- Nov. 23 NO CLASS – Thanksgiving
- Nov. 25 NO CLASS – Thanksgiving

Week 14 – Natural Resource Decision Making

- Nov. 28 Human dimensions of natural resources (see Moodle)
- Nov. 30 Democracy and natural resource decisions (see Moodle)
- Dec. 2 Collaborative approaches to western US conservation issues (see Moodle)

Week 15 – Justice; Current Event Analysis

- Dec. 5 Social and Environmental Justice (see Moodle)
- Dec. 7 Issue spotlight (see Moodle)
- Dec. 9 Issue spotlight (see Moodle)

Week 15 – Semester Review

- Dec. 12 *Semester Review*
- Dec. 13 NO CLASSES – READING DAY
- Dec. 14 NO CLASSES – FINALS START

Finals Week

Tuesday, Dec. 20 Comprehensive Final Exam – 8:00AM to 10:00AM