Syllabus: WILD370 Wildlife Habitat Conservation & Management Fall 2016 – 3 Credits



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Lecture times:

12:00 – 12:50 PM TR (FOR 106), Final exam: 10:10-12:10, Thursday, December 15, 2016.

Prerequisites:

Ecology (BIOE 370/371) prior, *not concurrent*, or approval by instructor. Additionally, students must have senior or junior level standing in Wildlife Biology.

Field trips:

Field trips (going off campus) are planned from 12:00 – **5:00 or 6:00 PM** Tues (some may go later!!!) <u>on specific</u> <u>dates</u> during the semester. If you cannot attend these field trips, students should consider taking WILD 370 at another time.

Course Objectives:

To gain a familiarity with the theoretical underpinnings of the importance of habitat to wildlife species in terrestrial ecosystems, and to gain proficiency with the application of this theoretical basis to wildlife habitat conservation issues. Practical hands on experience will be gained on field trips and course activities (primarily during laboratory hours) where students will be expected to be able to apply theories to practical conservation issues.

Required Readings:

Assigned readings from textbooks, scientific papers, and other readings will be posted on Moodle PRIOR to class – students are expected to have completed the readings and be prepared to discuss them in class.

Course Website:

MOODLE UMOnline (http://umonline.umt.edu/). If you have not used Moodle in prior courses, there is 'Moodle 101 for Students' (https://moodle.umt.edu/enrol/index.php?id=979) to assist you in learning the basics. You need to login to Moodle to access this tutorial.

Final Exam Time:

10:10 AM -12:10 PM, Thursday, December 15, 2016 in FOR 106 (see Final Week Schedule; http://www.umt.edu/registrar/students/finalsweek2/).

Note: Final exam times are YOUR responsibility to confirm and conflicts need to be taken into account during registration. If you have a conflict, it is your responsibility to change your schedule or talk to professors early. No extra exams will be scheduled to accommodate conflicts after the last drop date.

Grading:

Please note, this class is offered for traditional letter grade only, it is not offered under the credit/no credit option.

Tentative grading, subject to change				
Category	Description	Marks	%	
<u>Exams</u>	Midterm 1 (Oct 20 th)	40	13.33%	
	Final Exam (Dec 15th)	40	13.33%	
<u>Assignment</u>	Definition	10	3.33%	
	Field Observation	20	6.67%	
	Participation in UM Seminars	20	6.67%	
<u>Wildlife Habitat Study</u>	Data Collection - Day 1	10	3.33%	
	Data Collection - Day 2	10	3.33%	
	Data Analysis	20	6.67%	
	Grant Application	20	6.67%	
Field Trip reports	1	20	6.67%	
	2	20	6.67%	
	3	20	6.67%	
Panel	Questions	10	3.33%	
	Participation in Panel	10	3.33%	
Review Topic	Topic / Annotated Bibliography	10	3.33%	
	Final Presentation	20	6.67%	
Total		320	100.00%	

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Lecture Format:

Lectures will be primarily PowerPoint or Keynote based and made available on the course website for downloading and reviewing. However, additional material will be covered not contained in presentations and will be considered part of testable class content. Additional materials will include class discussions (including field trips), films/web videos, discussion of current events, and questions.

Topics Covered (Tentative):

- 1. Definitions Wildlife, Habitat, Conservation, and Management
- 2. Niche Theory
- 3. Habitat and the Niche
- 4. Theories of Habitat Selection
- 5. Habitat Selection
- 6. Measuring/Modeling Wildlife Habitat
- 7. Applying Habitat Models to Conservation
- 8. Island Biogeography Theory
- 9. Habitat Fragmentation
- 10. Restoration Ecology
- 11. Disturbance Ecology
- 12. Corridors and Connectivity
- 13. Community-Based Conservation
- 14. Landscape Conservation
- 15. Focal Species and Ecosystem Management
- 16. Habitat and Climate Change

Field Trips:

During Fall 2016, there will be 2-4 scheduled field trips targeted for Tuesday afternoons from 12:00 – 5:00 or 6:00 PM (or even later). We will provide you with those dates once our plans have been finalized (this should be within the next few weeks). There will be mandatory follow up lab reports. Field trips introduce students to concepts on the practical application of wildlife habitat to conservation issues in western Montana. Field trips will leave promptly at the designated time stated in class, regardless of inclement weather. In general, we will leave during lecture time to maximize time in the field, and some field trips will return students to campus later than the scheduled field time.

NOTE: Participation in all field trips is mandatory and students are expected to schedule for the allotted time, get off work, make alternate arrangements for other courses, etc. etc. FIELD TRIPS ARE A KEY PART OF THE WILDLIFE BIOLOGY EXPERIENCE!!!!!! An absence from a single field trip is an automatic 1 letter grade deduction from your final grade.

Assignments:

There will be numerous assignments throughout this course (see tentative grading table above). The focus of the assignments is to introduce you to applying a diverse set of conservation skills. Definitions, field observation and attending UM seminars are individual assignments. Additional activities have multiple assignments as described below.

1. Definitions

In this course we will go over the various definitions for terms often used in our field. Specifically those in the title of this course. Thus, one of the first assignment is about definitions. You will be given an exercise to illustrate the various definitions for a term.

2. Field Observation

Field observation is the collection of information outside a laboratory, library or workplace setting. In Wildlife Biology, observations typically involve studying free-living wild animals in which the subjects are <u>observed</u> in their natural <u>habitat</u>, without changing, harming, or materially altering the setting or behavior of the animals under study. Such observations are an indispensable part of wildlife management and conservation. Students will select a wildlife species of their choice, seek it out, and observe the species in the field long enough to answer a list of detailed questions.

3. Wildlife Habitat Study

Students will be provided materials, including the description of a study, in which they will collect data on a wildlife

species on or near campus. Data will be collected during 2 lab periods. Information will be provided that assists the students in 1) establishing their study, 2) map delineating habitat on or near campus, 3) study design, and 4) data sheets. Students will work in groups and are required to participate in all aspects. One lab period will be dedicated to assist students in analyzing the data to aid them in addressing questions for a lab write-up. Students will then write a grant application to support a habitat easement for the species they have investigated, using information they have collected during the field study and analysis.

4. Participation at seminar at the University of Montana

There are numerous opportunities on campus for students to learn about current, past, and future wildlife habitat conservation and management issues. For instance, the Wildlife Biology Program has a weekly seminar on Fridays from 1-3pm in which graduate students and guest speakers discuss the wildlife habitat conservation and management activity they are working on. The Organismal Biology and Ecology Program has similar seminars at noon and 4pm on Wednesdays. And there are many, many more in other programs such as Resource Conservation, Environmental Studies, Forestry, Systems Ecology, etc. Students need to attend 2 1-hour (or > 40 minute) seminars throughout the semester. I and the TA will provide a list of seminars on the course website (Moodle) as they are announced (some are already listed for the semester but changes do occur). *Students are responsible for informing the instructor and TA of what seminar(s) they plan to attend 2 days prior to the seminar. A 1-2page well-written summary of the seminar is due 1 week after the seminar. <i>Write-ups should be typed in no smaller than 11-point font and double spaced*.

5. Panel Discussion

Community-based conservation is a conservation movement that is exponentially growing across the nation and internationally. Numerous community-based conservation efforts are right in the 'back door' near Missoula. The class will have the opportunity to meet with some 'flagship' individuals who have participated in community-based conservation activities. We will discuss this concept in class. Students will be asked to provide a list of questions for the panel to discuss this emerging movement. In addition students will have opportunities to communicate one-on-one with panel participants. This activity will occur during laboratory time. The date will be provided within the next few weeks.

6. Wildlife Habitat Conservation and Management Review Presentation

In this assignment, students will research an issue in wildlife habitat ecology on a topic of their choice related to a current conservation "problem" – this is an opportunity to dive into something that really interests you about wildlife habitat, read as many papers and books you can about it, and then put it all together in presentation. This presentation is a SYNTHESIS / REVIEW and has different goals from a traditional scientific paper or presentation which we will cover in lecture. There are several components to the review that will be completed throughout the semester including meeting with the professor and/or teaching assistant regarding your proposed topic, completion of an annotated bibliography, and final presentation.

Additional Assignments

There may be additional assignments assigned during the semester.

Exams:

The mid-term (tentatively scheduled for Oct 20th, 12:00 to 12:50 PM) and final (Dec 15th, 10:10 AM -12:10 PM) exams will be multiple choice, true-false, short answer and short essay questions. Course material in lectures, labs, and readings will be considered for all exams. The midterm exam will cover all course content up to the class prior, and the final exam will be primarily weighted from material from the second half of the semester. But keep in mind that we will continue to build on the theoretical concepts and the application to conduct conservation as discussed in the first half throughout!

Students arriving at a scheduled exam AFTER the first person to finish the test has left the room will not be allowed to take the test and will be assigned a ZERO. Failure to take an exam during the regularly scheduled time will result in a

grade of ZERO being assigned. Make-up exams will be scheduled only given documentation of a valid excused absence (see attendance below) 1 week prior to the regularly scheduled exam time. Make up exams will be essay format and students will have 1 week following return to school to schedule exams – this will be your responsibility.

General Course Policies

Attendance Policy:

Attendance will not be recorded in lecture because your desire to learn will dictate your presence. Students are individually responsible for all information presented in lectures, guest lectures, and on the course Moodle website. No make-up exams will be scheduled. In the case of medical or family emergency (e.g., legitimate, planned absences) I will work with the student individually in terms of rescheduling exam times, etc. Formal health care documentation will be required for legitimate emergencies.

Academic Dishonesty:

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 <u>Student Conduct</u> <u>Code (http://www.umt.edu/vpsa/policies/student conduct.php)</u>.

Plagiarism:

Paraphrasing or quoting another's work without explicitly citing the source is plagiarism and a form of academic misconduct. Even inadvertent or unintentional misuse of appropriation of another's work (such as relying heavily on source material that is not expressly acknowledged) is considered plagiarism. If you have any questions about using and citing sources, you are expected to ask for clarification. <u>This includes websites like Google and Wikipedia, although note that not all information retrieved (in fact most!) from such sites is not peer-reviewed, and thus not often scientifically valid.</u>

Credit for Work from Another Class:

Submission of materials that were written for credit in another class is not permitted, regardless of whether the subject matter is appropriate (as per the University of Montana Student Conduct Code). In other words, you are expected to turn in original work for this course. If you have any questions, whatsoever, it is better to speak with the professor or teaching assistant before you get a zero for an assignment.

Mobile (Cell) Phone Policy:

Mobile phone use is disruptive to you and your fellow students' learning and my teaching. No use of mobile (cell) phones will be permitted in class. Students caught using mobile phones for texting, phoning, or browsing the internet will be immediately excused from class for the remainder of the lecture. After 1 incident, I will start by deducting one letter grade from the student's grade. *If a students' mobile (cell) phone rings or vibrates during an exam, the student will receive a zero on the exam.*

Email Policy:

I expect emails from students to myself and the teaching assistant to be composed professionally, with proper sentence structure and English writing style including clear, concise question(s). Students are encouraged to send emails to myself and the teaching assistant through the course Moodle website. I often get >100 emails per day so if you want me (and/or the teaching assistant) to respond please send emails through the course website.

Students with Disabilities:

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.

Dropping/Adding:

Drop/Add dates are posted at the <u>Office of the Registrar Calendar</u> (http://www.umt.edu/registrar/PDF/Autumn2016RegistrationDeadlinesChart.pdf).

Important Dates Restricting Opportunities to Drop a Course Fall 2016:

Deadline	Description	Date
To 15 th instructional	Students can drop classes on CyberBear with refund	September 19 = last
day		day
16 th to 45 th	A class drop requires a form with instructor and	September 20
instructional day	advisor signature, a \$10 fee from registrar's office,	through October 31
	student will receive a 'W' on transcript, no refund.	
Beginning 46 th	Students are only allowed to drop a class under very	November 1 –
instructional day	limited and unusual circumstances. Not doing well in	December 12
	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 45 th instructional day of the semester.	
	Requests to drop must be signed by the instructor,	
	advisor, and Associate Dean and a \$10 fee applies.	