

Syllabus: WILD 370 Wildlife Habitat Conservation & Management, Fall 2023 – 4 Credits



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Overview

Lecture times: 11:00 – 12:20 PM Tuesday and Thursday (FOR 305)

Laboratory (field trip) times: 13:00 – ~5:00 pm Tuesdays only on specified dates AND locations throughout the semester. Several later labs will be in the Stone Hall Computer Lab. The Lab will almost NEVER be in University Hall (UH) 210 as listed on Cyberbear. Students must be able to attend all field trips, no exceptions.

Prerequisites: Ecology (BIOE 370/371*) or equivalent upper-division ecology course, AND statistics (STAT 216/WILD 240) AND \geq junior standing in Wildlife Biology. * **Pre-requisites will be enforced.**

Grading: Traditional letter grade only, it is not offered under the credit/no credit option.

Course Objectives: To gain familiarity with the theoretical importance of habitat to wildlife in terrestrial ecosystems, and to gain proficiency with the application of theory to wildlife habitat conservation issues. Students will gain familiarity with wildlife habitat study design, data collection, and statistical modeling of wildlife habitat. Practical hands-on experience will be gained on field trips during the semester where students will be expected to be able to apply theories to practical conservation issues in Montana.

Required Readings: Assigned readings from textbooks, scientific papers, and online will be posted on MOODLE PRIOR to class – students are expected to have read them and be prepared to discuss in class.

Course Website: [MOODLE](#) Students will need an active UM NetID to access the Moodle class webpage. Take the UM Online 101 courses to learn more about Moodle.

Final Exam Time: 10:10 - 12:10, Wednesday, December 13, 2023. The final exam schedule is posted here: [Final exam schedule](#). *Note: final exam times are YOUR responsibility to confirm and conflicts need to be considered 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.*

Lecture Format:

Lectures will be PowerPoint-based and made available on the course website AFTER lectures for downloading and reviewing. Additional material will be covered not contained in PowerPoint presentations and will be part of testable class content. Additional materials will include class discussions, class activities and learning exercises, films, discussion of current events, and questions.

Lab Format:

There will be 10 scheduled 'labs'. We will be participating in [Snapshot USA](#) and spending extra time during Labs 1, 2, 3 and 7 deploying and retrieving 25-30 wildlife cameras on Lubrecht's property as part of this national camera trap initiative. We will also have optional weekend field trips for camera trapping as needed. Labs 3-5 will be field trips leaving promptly at 11:00 and returning ~ 5:00 pm (sometimes later) instead of a regular class meeting. Labs 6, 8, and 9 will take place on campus in the computer lab in Stone Hall 106 from 1-5. Computer Labs will be using Excel, the statistical package R, and Wildlife Insights software. Labs 4 – 7. The last two 'lab's will be student presentations.

Participation in all field trips is mandatory and students are expected to schedule all labs 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! Students with un-excused absences from field trips will be unable to complete the assignment for that lab and will be assigned a zero.

Grading:

This class is offered for traditional letter grade only; there is no credit/no credit option. Furthermore, there is no graduate increment offered in this class.

Category	Description	Marks	%
<u>Exams</u>	Midterm 1	50	14%
	Final Exam	50	14%
<u>Lab reports</u>	Lab reports (10)	100	29%
<u>Camera Project</u>	Proposal	25	7%
	Oral Presentation	50	14%
	Report	50	14%
Participation	Participation	25	7%
		350	100%

Late Assignment Policy

- *Late assignments will be considered at a -10% grade/calendar day penalty, including the day the assignment is due if not handed in during normal class or lab time.*

1. **Exams:** Exam(s) will be entirely TAKE HOME with multiple choices, true-false, short answer, some statistical calculations, 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 discussed in the first half throughout! Take home exams will be assigned generally the week before they are due. The Final exam will be due by the end of the assigned exam slot for this class, December 13, 10:00 – 12:00. There will be no make-up exams given; instead, the rest of the student's grade will be weighted without the missing exam.
2. **Assignments:** There will be 10 'lab reports' assignments, 2 computer lab assignments, 1 presentation, and 3 field trip reports. Assignments will all be take-home, some will involve group work, and formats will vary between assignments – detailed instructions will be given in lecture for each assignment. In general, lab assignments will be due in ONE WEEK. One BONUS lab assignment will be for students to attend a lecture on campus on a topic related to habitat conservation and management, and this assignment will be posted on MOODLE in week 1.
3. **Wildlife Camera Trapping Project:** In this assignment, students will pick a topic of their choice regarding wildlife habitat and behavior from the Snapshot USA project, either our own or other projects around the USA. There are several components to the review topic that will be completed throughout the semester including developing a 5-page (max) research proposal, preliminary analysis using existing data, an oral presentation, and a 5-page final summary report. Oral presentations will be scheduled during class & lab meeting times on the syllabus at the end of the semester.
4. **Class Participation:** students will be expected to participate in class discussions, online Moodle discussions & forums, and ask guest lecturers and field trip hosts respectful and thoughtful questions throughout the semester. Grades will be assigned based on all forms of class participation.

WILD 370 - Wildlife Habitat Conservation and Management

<div> <div>Key</div> <div> <div>Lecture</div> <div>Field Trip</div> </div> <div> <div>Assignment & Due Date</div> <div>No Class/Lecture</div> </div> </div>						
#	Date	Day	Approximate Lecture Topic	Tuesday Lab	Assignment Due Date	Location
1	29-Aug	Tues	1. Introduction / Syllabus	No Lab		FOR 305
2	31-Aug	Thur	2. Camera trapping design / Bear Safety			FOR 305
3	5-Sep	Tues	Camera Trapping 9?/11:00 AM - 5:00PM	Lab 1: Camera trapping	Lab 1: Bear Safety	Bandy Ranch
4	7-Sep	Thur	3. Camera trapping study design			FOR 305
5	12-Sep	Tues	Camera Trapping 9?/11:00 AM - 5:00PM	Lab 2: Camera trapping	No Lab Due	Bandy Ranch
6	14-Sep	Thur	4. Camera Trapping 3			FOR 305
7	19-Sep	Tues	Camera Trapping 9?/11:00 AM - 5:00PM	Lab 3: Camera Trapping	Lab 2: Camera Trapping	Bandy Ranch
8	21-Sep	Thur	5. Habitat and Niche Theory			FOR 305
9	26-Sep	Tues	Field Trip 1: Highway 93 N	Lab 4: Field Trip 1	No Lab Due	Field Trip
10	28-Sep	Thur	6. Niche Theory II			FOR 305
11	3-Oct	Tues	Field Trip 2: MPG Ranch and North Bitterroot Corridor	Lab 5: Field Trip 2	Lab 3: Field Trip 1	FOR 305
12	5-Oct	Thur	Field Trip: Private Lands Partners Day 2023			FOR 305
13	10-Oct	Tues	Field Trip 3: Blackfoot Challenge	Lab 6: Field Trip 2	Lab 4: Field Trip 2	Field Trip
14	12-Oct	Thur	8. Critical Habitat & ESA			FOR 305
15	17-Oct	Tues	Lab 6: Critical Habitat Presentations	No Lab		Take-home
16	19-Oct	Thur	9. Density-dependent habitat selection		Lab 7: Field Trip 3	FOR 305
17	24-Oct	Tues	10. Panthera and Habitat	No Lab	Take Home Midterm I	FOR 305/ SH 106
18	26-Oct	Thur	11. Bison habitat and restoration - Farr			FOR 305
19	31-Oct	Tues	Camera Trapping 11:00 AM - 5:00PM	Lab 7: Retrieve Cameras	No Lab Due	Bandy Ranch
20	2-Nov	Thur	12. Island Biogeography Theory			FOR 305
21	7-Nov	Tues	13. Habitat Fragmentation II	Lab 8: Wildlife Insights -		None

				Processing Images (SH 106)		
22	9-Nov	Thur	14. Connectivity Science		Lab 8: Wildlife Insights	None
23	14-Nov	Tues	15. Statistical Foundations of Habitat Modeling	Lab 9: Resource Selection (SH 106)		FOR 305/ SH 106
24	16-Nov	Thur	16. Resource Selection Functions II		Proposal Due	FOR 305
25	21-Nov	Tues	17. Occupancy modeling	No Lab	Lab 9: Resource Selection	FOR 305
26	23-Nov	Thur	Thanksgiving: No Class			None
27	28-Nov	Tues	18. Wildlife and fire	Lab 10: Occupancy Modeling (SH 106)		FOR 305/ SH 106
28	30-Nov	Thur	19. Wildlife and climate change			FOR 305
29	5-Dec	Tues	<u>Student presentations</u>	<u>Student presentations (UH 210)</u>	Lab 10: Occupancy Models	FOR 305 / UH 201
30	7-Dec	Thur	20 Wildlife Habitat Wrap-up		Final Report: Snapshot Image Project	FOR 305
31	13-Dec	Wed	<u>Scheduled Exam Time 10:00 - 12:00 noon.</u>		Final Take Home Exam Due by 12:00 noon	Take-home

General Course Policies

Email Policy:

Email is perhaps the world's most banal form of communication, not including texting. I require emails to myself and the teaching assistant from students to be composed professionally with proper English writing grammar with no spelling mistakes. Emails should contain a subject line that CLEARLY identifies the COURSE CODE [i.e., Subject: WILD 370 question from student X], and a clear, concise question. Proofread your emails several times. Because of email proliferation, professors often get >200 emails a day. I do not reply to emails sent after normal working business hours, Monday to Friday. I also do not answer my office phone because I am usually in another meeting.

Furthermore, while I may be able to answer procedural and simple questions on email, the main use of email in this class should be to request a meeting outside of the normal office hours of myself and teaching assistant. **IF you have general questions about course material, the encouraged vehicle for class discussion will be via the MOODLE discussion forum on our class website.** Students emailing me or the TA with a general question will be directed to repost their general course question to MOODLE so that we can provide an answer for all students. Chances are, if you have a question about an assignment, material in class, or a class-related topic, someone else does. Answering your question for everyone will help the entire class.

Mobile Phone Policy: Mobile phone use is disruptive to both your own, your fellow students learning, and teaching. No use of mobile phones will be permitted in class, and ESPECIALLY NOT on field trips. Student caught using mobile phones for texting, phoning, browsing the internet will be excused immediately from class for the remainder of the lecture. After 3 such incidents, I will start by deducting one letter grade from the student's grade.

General Course Policies

Students with Disabilities Statement

- If you are a student with a disability and wish to request accommodations for this course, contact me privately to discuss the specific modifications. If you have not yet registered with Disability Services, located in Lommasson Center 154, please do so to coordinate your reasonable modifications. For more information, visit the Office for Disability Equity <https://www.umd.edu/disability/>

Student Conduct Code Statement

- 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](#).
- Academic misconduct, such as Cheating or Plagiarism [see §V(A)(1) & (B)(1) of the Student Conduct Code] will be addressed on a case-by-case basis but can most often results in an automatic failing grade in the class as determined by the sole prerogative of the instructor. Moreover, University sanctions can include warnings, probation, suspension, expulsion, and denial of a degree.

Credit for Work from Another Class

- Submission of papers 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.

Important Dates Restricting Opportunities to Drop a Course Fall 2023

<https://www.umt.edu/registrar/calendar/autumn.php>

Deadline	Description	Date
7 th Class Day	Students can add classes via Cyberbear without COI.	Sept 6, 2023 (5pm)
To 15 th instructional day	Students can drop classes on CyberBear with refund & no "W" on Transcript	Sept 18, 2023 (5pm)
16 th to 45 th instructional day	A class drop requires a form with instructor and advisor signature, a \$10 fee from registrar's office, student will receive a 'W' on transcript, no refund.	Oct 30, 2023 (5pm)
Beginning 46 th instructional day	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, switching majors, 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 (in that order) so if you pursue this request, leave sufficient time to schedule meetings with each of these individuals (generally this will take at least 3-5 working days). A \$10 fee applies if approved. Instructor must indicate whether the individual is Passing or Failing the class at the time of request.	Dec 8, 2023 (5pm)

Class Attendance Policies

- Attendance will not be recorded in lecture. Students are individually responsible for all information presented in lectures, guest lectures, readings and field trips. No make-up exams will be scheduled. In the case of medical or family emergency I will work with the student individually in terms of rescheduling exam times etc. Formal health care documentation will be required for legitimate emergencies. Please acquaint yourself with the specific code in the [UM Catalog](#) (search for "Class Attendance/Absence Policy").
 - Students who are registered for a course but do not attend the first two class meetings may be required by the instructor to drop the course.