

Conservation of Wildlife Populations – WILD 470

Autumn Semester 2016

Instructor: Dr. Angie Luis (angela.luis@umontana.edu) TA:
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REQUIRED READINGS (read before class each day)

Conservation of Wildlife Populations, 2nd edition, by L. Scott Mills

- Chapter assignments for each class shown in brackets

Additional readings to be assigned

CLASS MEETING TIMES

MWF	12:00-12:50	LA 243
R	1:00-1:50	STON 106

OFFICE HOURS

Dr. Luis	MW	1:00-1:50	FOR 207A
Juan	R	2:00-2:50	STON 106

or by appointment

TENTATIVE SCHEDULE

August	Mon	29	Course introduction and context
	Wed	31	The Big Picture [Ch. 1]
September	Thurs	1	<i>Lab 1: Intro to R</i>
	Fri	2	How do we know? Study design and hypotheses [Ch. 2]
	Mon	5	Labor Day – no class
	Wed	7	Gaining Reliable Knowledge [Ch. 2, 3]
	Thurs	8	<i>Lab 2: Power Analysis</i>
	Fri	9	Estimating abundance (Introduction and transects) [Ch. 4]
	Mon	12	Estimating abundance (mark-recapture) [Ch. 4]
	Wed	14	Survival and reproduction [Ch. 4]
	Thurs	15	<i>Lab 3: Population Estimation</i>
	Fri	16	Population trend, exponential growth [Ch. 5]
	Mon	19	Exponential Growth continued [Ch. 5]
	Wed	21	Stochasticity and population growth [Ch. 5]
	Thurs	22	<i>Review for Exam</i>
	Fri	23	EXAM I

WILD 470 Autumn 2016 Syllabus

	Mon	26	Population projection models [Ch. 6]
	Wed	28	Population projection models [Ch. 6]
	Thurs	29	<i>Lab 4: Exponential Growth</i>
	Fri	30	Population projection models [Ch. 6]
October	Mon	3	Population projection models [Ch. 6]
	Wed	5	Sensitivity Analysis [Ch. 6]
	Thurs	6	<i>Lab 5: Matrix Models</i>
	Fri	7	Sensitivity Analysis [Ch. 6]
	Mon	10	Density Dependence [Ch. 7]
	Wed	12	Predation [Ch. 8]
	Thurs	13	<i>Lab 6: Matrix Models Continued</i>
	Fri	14	Predation [Ch. 8]
	Mon	17	Predation & Microparasites [Ch. 8]
	Wed	19	1-minute presentation of proposal ideas
	Thurs	20	<i>Lab 7: Density Dependence</i>
	Fri	21	Microparasites
	Mon	24	Macroparasites
	Wed	26	Genetic variation and fitness [Ch. 9]
	Thurs	27	<i>Exam Review</i>
	Fri	28	EXAM II
November	Mon	31	Connectivity [Ch. 10]
	Wed	2	Meta-populations & Ecological traps [Ch. 10]
	Thurs	3	<i>Office hours/ work on proposals</i>
	Fri	4	Human perturbations on populations [Ch. 11]
	Mon	7	Human perturbations on populations [Ch. 11]
	Wed	9	Small populations [Ch. 12]
			Draft Research Proposal Due
	Thurs	10	<i>Lab 8: Small Population Conservation</i>
	Fri	11	Veteran's Day – no class
	Mon	14	Population Viability [Ch. 12]
	Wed	16	Harvest management [Ch. 14]
	Thurs	17	<i>Lab 9: Harvest</i>
	Fri	18	Harvest management [Ch. 14]
			Proposal Reviews Due
	Mon	21	Focal species management [Ch. 13]
	Wed	23	Thanksgiving – no class
	Thurs	24	Thanksgiving – no class
	Fri	25	Thanksgiving – no class

WILD 470 Autumn 2016 Syllabus

	Mon	28	Wildlife population monitoring
	Wed	30	Case Study
December	Thurs	1	Office hours/ work on proposals
	Fri	2	Program MARK demo and synthesis
	Mon	5	Program MARK demo and synthesis Final Research Proposal Due
	Wed	7	Adaptive Management & wrap-up
	Thurs	8	No Lab
	Fri	9	Final Exam Review
	Mon	12	

FINAL EXAM Thursday December 15, 2016 at 8:00-10:00am

GRADING: Grades will be based on 2 mid-term exams, the final exam, lab exercises and a written research proposal. Late assignments will be penalized 10% for each day late. All assignments must be turned in as hard copies, emailed or other electronic files will not be accepted.

Assignment	%
Mid-term exam 1:	20%
Mid-term exam 2:	20%
Final exam:	20%
Lab exercises:	20%
Research Proposal:	20%

RESEARCH PROPOSAL: Each student is required to prepare a research proposal on a topic of his or her choice related to wildlife population ecology. The proposal should include an abstract (≤ 250 words), introduction to the topic, hypotheses and predictions, research methods, expected products, implications, and literature cited (in Journal of Wildlife Management style). The proposal must also include a budget. The length of the proposal including all sections is 10 pages, double-spaced with 12 point font (at least 8 pages text).

Draft proposals are due Wednesday, November 9. Draft proposals will then be anonymously reviewed by two students in the class. **Failure to turn in a draft proposal on time will result in failing the entire assignment. Reviews must be submitted Friday, November 18.** Reviews should consider the scientific merit and clarity of presentation of the proposal.

Students then must consider the reviews of their proposal, revise the proposal and submit the original draft, revised proposal, a cover letter describing how they addressed the reviews and the reviews on Monday, December 5. Students will be evaluated on their proposal, how they handled the reviews and their reviews of other students' proposals.

UPPER DIVISION WRITING REQUIREMENTS: WILD 470 in conjunction with two additional upper division writing courses meets the university upper division writing requirement. WILD 470 specifically meets the following outcomes:

- Identify and pursue more sophisticated questions for academic inquiry
- Find, evaluate, analyze, and synthesize information effectively from diverse sources
- Manage multiple perspectives as appropriate
- Recognize the purposes and needs of discipline-specific audiences and adopt the academic voice necessary for the chosen discipline
- Use multiple drafts, revision, and editing in conducting inquiry and preparing written work
- Follow the conventions of citation, documentation, and formal presentation appropriate to that discipline
- Develop competence in information technology and digital literacy

PLAGARISM: Plagiarism will not be tolerated and will result in failing the course.

STUDENT CONDUCT CODE: 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](#).

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.

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

DROP DATES: After registering and through the **first seven (7) instructional days of the semester**, students may use [Cyberbear](#) add courses or change sections and credits; through the **first fifteen (15) instructional days of the semester**, students may use [Cyberbear](#) to drop courses. Fees are reassessed on the sixteenth day of the term. Added courses and credits may result in additional fees. For courses dropped by the fifteenth instructional day, no fees are charged and courses are not recorded. (For deadlines and refund policy for withdrawal from all courses, see the Withdrawal sections of this catalog.)

An instructor may specify that drop/add is not allowed on the internet. A drop/add form is used to make changes in these courses, if approved by the instructor.

After adding a course, the credit/no credit grading option or auditor status may be elected on the internet or on a form available at the Registration Counter in Griz Central in the Lommasson Center. These options are not allowed for some courses as identified in the Class Schedule. Change of grading option to audit is not allowed after the 15 instructional day.

Beginning the sixteenth (16) instructional day of the semester through the forty-fifth (45) instructional day, students use paper forms to drop, add and make changes of section, grading option, or credit. The drop/add form must be signed by the instructor of the course and the student's advisor. The signed drop/add form must be returned to the Registration Counter (or the Registrar's Office at Missoula College) no later than the **forty-fifth** instructional day. A \$10.00 processing fee is charged for each drop/add form. Added courses and credits may result in additional fees. There are no refunds or reductions of fees for courses dropped and grades of W (withdrew) are recorded.

Beginning the forty-sixth (46) instructional day of the semester through the last day of instruction before scheduled final examinations, students must petition to drop. The petition form must be signed by the instructor of the course and the student's advisor and, the dean of the student's major. A \$10.00 processing fee is charged for each petition. There are no refunds or reductions of fees for courses dropped, and the instructor assigns a grade of WP (withdrew/passing) if the student's course work has been passing or a WF (withdrew/failing) if the course work has been failing. These grades do not affect grade averages but they are recorded on students' transcripts.

Documented justification is required for dropping courses by petition. Some examples of documented circumstances that may merit approval are: accident or illness, family emergency, or other circumstances beyond the student's control.

The opportunity to drop a course for the current term for such a course ends on the last day of instruction before scheduled final exams. Dropping a course taken in a previous term or altering grading option or audit status for such a course is not allowed. The only exceptions are for students who have received a grade of NF (never attended).

GRADING SCALE: The following scale will be used to translate points into grades.

93-100: A

90-92: A-

88-89: B+

83-87: B

80-82: B-

78-79: C+

73-77: C

WILD 470 Autumn 2016 Syllabus

70-72: C-
68-69: D+
63-67: D
60-62: D-
0-59: F