

Conservation of Wildlife Populations – WILD 470

Spring Semester 2016

Instructor: Dr. Paul M. Lukacs

TA: Charles Henderson

Required Readings (read before class each day)

- Conservation of Wildlife Populations, 2nd edition
 - Chapter assignments for each class shown in brackets
- Additional readings to be assigned

Class meeting times:

MWF 9:10-10 LA 342, M 1:10-2:00 STON 107

January

- Mon. 25 Course introduction and context
- Wed. 27 The Big Picture [Ch. 1]
- Thur. 29 How do we know? Study design and hypotheses [Ch. 2]

February

- Mon. 1 Gaining Reliable Knowledge [Ch. 2, 3]
- Wed. 3 Estimating abundance (Introduction and transects) [Ch. 4]
- Fri. 5 No Class
- Mon 8 Estimating abundance (mark-recapture) [Ch. 4]
- Wed.10 Survival and reproduction [Ch. 4]
- Fri. 12 Population trend, exponential growth [Ch. 5]
- Mon. 15 President's Day – No Class
- Wed. 17 Exponential Growth continued [Ch. 5]
- Fri. 19 Stochasticity and population growth [Ch. 5]
- Mon.22 **EXAM I**
- Wed. 24 Population projection models [Ch. 6]
- Fri. 26 Population projection models [Ch. 6]
- Mon.29 Sensitivity Analysis [Ch. 6]

March

- Wed. 2 Sensitivity Analysis [Ch. 6]
- Fri. 4 Density Dependence [Ch. 7]
- Mon 7 Density Dependence [Ch. 7]
- Wed. 9 Predation [Ch. 8]
- Fri. 11 Predation [Ch. 8]
- Mon.14 Inbreeding and wild populations [Ch. 9]
 - **1-minute presentation of proposal ideas**

- Wed. 16 Genetic variation and fitness [Ch. 9]
- Fri. 28 Connectivity [Ch. 10]
- Mon. 21 Meta-populations

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- Wed. 23 Ecological traps and sinks [Ch. 10]
- Fri. 25 **EXAM II**
- Mon. 28 Human perturbations on populations [Ch. 11]
- Wed. 30 Disease dynamics

April

- Fri. 1 Small populations [Ch. 12]

Draft Proposal Due

Spring Break

- Mon.11 Population Viability [Ch. 12]
- Wed. 13 Harvest management [Ch. 14]
- Fri. 15 Harvest management [Ch. 14]

Proposal Reviews Due

- Mon. 18 Focal species management [Ch. 13]
- Wed. 20 Focal species management [Ch. 13]
- Fri. 22 Wildlife population monitoring
- Mon. 25 Combining science and monitoring
- Wed. 27 Adaptive management
- Fri. 29 Case study

May

- Mon. 2 Case study – humpback whales

Final Research Proposal Due

- Wed. 4 Case study continued
- Fri. 6 Conclusions and final thoughts

FINAL EXAM Wednesday, May 11, 2016 at 10:10-12:10

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.

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

PLAGARISM:

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

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 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.

Draft proposals are due Friday, April 1, 2016. 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, April 15, 2016.** 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, May 2, 2016.** 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 meeting 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

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).