FWB 260: Principles of Wildlife Management

Spring 2013
Engineering 120 at 15:00 to 16:15 Tues and Thurs

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Synopsis:
Principles of ecology applied to management and conservation of fish and wildlife. This class is designed for Fish, Wildlife, and Conservation majors, but will be incorporating other natural resource fields where applicable.

Course Objectives:

1. Students will develop a general understanding of the assumptions, effectiveness, and limitations of theories and strategies used to manage fish and wildlife populations and their habitats.
2. Students will develop analytical problem-solving skills and will gain experience in data interpretation and graphical and mathematical models.
3. Students will develop a general appreciation for the challenges and opportunities inherent in fish and wildlife conservation

Readings:

Your primary textbook will be:


We will read much, but not all, of this book. Additional course material will be taken from the primary literature and other relevant readings. For access to course materials on RamCT you will need an eID user name and password. Visit http://ramct.colostate.edu and find the “student resources” tab to learn more about RamCT.

Supplies: You will need a calculator that can calculate logarithms for possible use on exams. Sharing calculators will not be allowed during exams.
Course Format:

1. Two lectures per week: Tues, Thurs: 3:00 – 4:15 pm  120 Engineering.
2. Come to class having read the pages assigned.
3. Weekly quizzes will be given on the assigned reading and previous weeks lecture materials.
4. If you miss a class, it is your responsibility to get the notes from a classmate.
5. Please bring questions to class and ask them. Discussion in class is important.

Course Grading:

Tentative point allocation for evaluation of students:

<table>
<thead>
<tr>
<th>POINTS</th>
<th>PERCENTAGE</th>
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<tbody>
<tr>
<td>88</td>
<td>21%</td>
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<tr>
<td>150</td>
<td>35%</td>
</tr>
<tr>
<td>100</td>
<td>24%</td>
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<td>18%</td>
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<td>12</td>
<td>2%</td>
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<td>425</td>
<td>100%</td>
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Pass/Fail is not a grading option. Fish, Wildlife, and Conservation majors must earn a “C” or better in FW 260. Cutoffs for grades typically will be based on the following percentages: 90-100 = A (or A-); 80-89 = B (or B-); 70-79 = C (or C-); 60-69 = D (or D-); ≤ 59 = F; in some instances grades might be based on the performance of the entire class.

Quizzes:

We will have approximately weekly in-class quizzes (~12 in total) during the semester administered using iClickers. These weekly quizzes are tentatively scheduled as indicated with a Q on your course schedule below. The quiz questions will be taken directly from course lectures and assigned readings, and will cover the period between quizzes. These regular quizzes are given to: 1) reduce “cramming” for exams by ensuring all students make frequent use of the material; 2) ensure better retention because you study and review material regularly; and 3) reward those who come prepared to class. I will drop the lowest in-class quiz score from the calculation of your grade. I do not give make up quizzes and it is your responsibility to ensure your iClicker works prior to each quiz (lack of batteries or other problems will result in a 0 on your quiz).

Exams:

Exam questions will be taken from lectures, guest lectures, textbook readings, and discussion readings (you are responsible for all information in reading assignments, even if it is not specifically covered in class). In general, exams will have some combination of true/false, multiple choice, matching, and short answer. Make-up or early exams are seldom given; rare exceptions are made for catastrophes truly beyond your control. In these cases, I must be notified before the exam and I must have written verification. If I do not have a valid excuse from you before the exam, you will receive a 0. I may choose to use a restricted average of other scores, instead of a makeup.

Once I have returned an exam you have 24 hours to identify any arithmetic errors on my part and I will correct them. If you did not detect arithmetic errors, but want question(s) re-
graded, you must submit the exam with a written explanation of your arguments within one week after it was returned in class. Beware! If you submit an exam for re-grading I will re-grade the entire exam to ensure no other mistakes were made (this may or may not benefit you).

**Problem-Sets:**

We will have 6 take-home problem sets during the semester. These are due at the start of the class on the due date and will be penalized 10% if received after the start of class of the due date. No problem sets will be accepted after the due date, unless I accept a catastrophic reason in advance.

**Conservation Activity:**

Each student will be required to conduct an activity relating to conservation (preferably of fish and wildlife) during the semester. The activity cannot be an assignment or project from another class. Possibilities include, but certainly are not limited to: 1) work at local conservation groups or zoos, 2) assisting ongoing scientific research programs 3) participation in conservation education programs, 4) delivering a public talk or seminar, 5) involvement in a conservation activity with the Student Chapter of The Wildlife Society, the Society for Conservation Biology, or the American Fisheries Society, or other student group, 6) writing to politicians regarding conservation issues, 7) writing articles regarding conservation issues for the popular press, etc. In the final day of class, students will turn in a brief (1 paragraph) description of their activity, and briefly tell the class what you did.

**Helpful Hints:**

1. Ask questions; 2. Rewrite your lecture notes; 3. Test yourself by writing questions in the margin of your notebook paper, next to relevant lecture material; 4. Use flash cards for studying vocabulary; 5. Study with a partner or group; 6. Use the TA office hours – she is there to help you, 7. Keep up with the material. In theory you should be studying 6-9 hrs/wk for a 3 credit class, but for some it will take more time and for others it will take less.

**Academic Dishonesty And Disruptive Behaviors:**

Cheating and plagiarism will not be tolerated in class. If found cheating, you will receive a failing grade. Distractive behaviors such as talking to neighbors, reading newspapers, regularly coming to class late (unless prior authorization has been given), or leaving class early are also not acceptable; students engaged in such activities may be asked to leave the class. Instances of academic dishonesty and disruption also may be referred to the Office of Judicial Affairs, which can result in University disciplinary action (see Student Rights & Responsibilities section of the CSU General Catalog for more information). As an instructor it is my responsibility to ensure all students have an equal opportunity to learn the material without disruption or distraction. I take that responsibility seriously and will not tolerate such disturbances.

Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity, and the personal and social integrity of which academic integrity is an integral part, is so central to our mission as students, teachers, scholars, and citizens, we will ask to you sign the CSU Honor Pledge as part of completing all of our major assignments. While you will not be required to sign the honor pledge, we will ask each of you to write and sign the following statement on your papers and exams:
"I have not given, received, or used any unauthorized assistance."

**Attendance And Participation:**

You are expected to attend all classes, but I will not take roll. As adults I leave it in your responsible hands to get notes from your peers (not from me or your TA) and do the required reading. Your participation in class may benefit you when I assign grades. Those students who have actively contributed in class will find that such participation may teeter their grade higher.

**Special Needs:**

Please let me know as soon as possible if you have any special needs. If any student has a learning disability please contact the Resources for Disabled Students in the General Services Bldg. That way we can work to accommodate you as soon as possible. It is your responsibility to work with RDS and bring necessary paper work to me.

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**FW260 Course Schedule**

1 Tues Jan. 22
   1.1 Course Intro
   1.2 Dr. Wittemyer Research Intro

2 Thurs Jan. 24
   2.1 Intro to Wildlife Management
   2.2 Text Reading - Chp 1-4

3 Tues Jan. 29 Q1
   3.1 Intro (Cont) - Discussion Ethics
   3.2 Text Reading - Chp 3
   3.3 Discussion Reading Murie (1954)
   3.4 Discussion Wildlife Management Ethics Reading

4 Thurs Jan. 31
   4.1 Wildlife Agencies, Legislation, and Role of Science in Wildlife Management
   4.2 Text Reading - Chp 1
   4.3 Assignment 1 CPW

5 Tues Feb. 5 Q2
   4.1 Guest Lecture CPW
   4.2 Text Reading - Chp 3,4
   6.5 **ASSIGNMENT 1 DUE**

6 Thurs Feb 7
   6.1 Management Approaches: Single-Species, Ecosystem, and Adaptive Management
   6.2 Text Reading - Chp 1
   6.3 Lecture Background Reading: Wilcove and Blair 1995 (Ecosystem Management)
   6.4 Lecture Background Reading: Grumbine 1997 (Ecosystem Management)

7 Tues Feb 12 Q3
   7.1 Wildlife Populations - Exponential Growth
   7.2 Text Reading - Chp 5,6
   7.3 Assignment 2 Exponential Growth

8 Thurs Feb 14
8.1 Wildlife Populations - Regulation and Logistic Population Growth
8.2 Text Reading - Chps 5,6,7
8.3 **ASSIGNMENT 2 DUE**
8.4 Assignment 3 Logistic Growth

9 Tues Feb 19 Q4
10.1 Wildlife Populations - Regulation and Logistic (cont)
10.2 **ASSIGNMENT 3 DUE**

10 Thurs Feb 21
11.1 Wildlife Populations (Cont)/Midterm Review

11 Tues Feb 26
MidTerm I

12 Thurs Feb 28
12.1 Wildlife Populations - Life Tables
12.2 Text Reading - Chps 5
12.3 Assignment 4 Life Tables

13 Tues Mar 5 Q5
13.1 Wildlife Populations: PVA

14 Thurs Mar 7
14.1 Welfare Factors
14.2 Text Readings: Chp 8,13,14
14.3 **ASSIGNMENT 4 DUE**

15 Tues Mar 12 Q6
15.1 Welfare Factors Cont.
15.2 Text Readings: Chp 8,13,14

16 Thurs Mar 14
15.1 Wildlife Habitat
15.2 Text Reading - Chp 16
15.3 Guest Lecture Nick Prough

Mar 18-22 Spring Break

17 Tues Mar 26 Q7
17.1 Predation
17.2 Text Reading - Chp 9

18 Thurs Mar 28
18.1 Predation (Cont)
18.2 Discussion Reading Leopold (1949)
18.3 Discussion Reading Ripple and Beschta (2006)
18.4 Predation Discussion

19 Tues Apr 2 Q8
19.1 Hunting and Harvest Theory
19.2 Text Reading - Chp 10
19.3 Assignment 5 Harvest Theory

20 Thurs Apr 4
20.1 Harvest (Cont)

21 Tues Apr 9 Q9
21.1 Human Dimensions of Wildlife
21.2 Discussion Reading Noss (2107)
21.3 Discussion Reading Lackey (2107)
21.2 Advocacy Discussion
21.5 **ASSIGNMENT 5 DUE**

22 Thurs Apr 11  
   22.1 Midterm 2 Review

23 Tues Apr 16  
   23.1 Midterm 2

24 Thurs Apr 18  
   24.1 Wildlife Diseases  
   24.2 Text Reading - Chp 11

25 Tues Apr 23 Q10  
   25.1 Animal Behavior and Wildlife Management

26 Thurs Apr 25  
   26.1 Guest Lecture: Prof. Gene Decker-Putting it all together

27 Tues Apr 30 Q11  
   27.1 Animal Behavior Cont. (animal space use)

28 Thurs May 2  
   28.1 North American Model of Wildlife Conservation  
   28.2 Discussion Reading Organ and Fritzell (2000)  
   28.3 Hunting Trends Discussion  
   28.4 Assignment 6 Wildlife Management Future

29 Tues May 7 Q12  
   29.1 The future of Wildlife Management  
   29.2 Reading: Wildlife Professional (2012)  
   29.3 Discussion Reading Orr 2007  
   29.4 Discussion Reading Knight 2007  
   29.5 Discussion Conservation and Optimism  
   28.3 **ASSIGNMENT 6 DUE**

30 Thurs May 9  
   30.1 Conclusions/Final Review  
   30.2 Text Reading - Chp 19  
   30.3 CONSERVATION VOLUNTEER DESCRIPTION DUE!

31 Weds May 15 - FINAL (2:00-3:50 PM)