Physiological Animal Ecology, Forest & Wildlife Ecology 401

University of Wisconsin-Madison Accreditation Details
Credits - 3
Canvas Course URL: https://canvas.wisc.edu/courses/118344
Course Designations and Attributes - None
Meeting Time & Location:
Lectures: Tues and Thurs 9:55-10:45 am; Sewell Social Sciences 5106
Discussion Wed or Thurs 4:35-6:00 pm; Russell Labs A228
Instructional Mode all face-to-face
How Credit Hours are met: Three classroom sessions per week of at least 50 min plus a minimum of two hours/week of out of class student work on assignments and reading

INSTRUCTORS AND TEACHING ASSISTANT

Instructor	Grader
Bill Karasov	
A145 Russell Labs (263-9319) wkarasov@wisc.edu	
Office hours in A145 or nearby in A139: M 11; T 11; W 3:30; Th 1:30 (each period = 50 min)	Available by appointment

OFFICIAL COURSE DESCRIPTION

Course Description - Physiological adaptation and function in wild animals, primarily birds, mammals, reptiles, amphibians. Focus on interactions between animals and their environment, and relationships between animal physiology and the ecology and dynamics of populations. Enroll Info: Jr st and basic zoology course

Requisites – None

LEARNING OUTCOMES

Course Learning Outcomes

1. Understand and explain key basic concepts and methods of study of physiology of vertebrates
2. Understand, explain and integrate interactions between animals and their environments, and relationships between animal physiology and the ecology and dynamics of populations of animals
3. Understand, explain, and integrate how features and tools of physiology are used to manage wildlife
4. Understand and use quantitative expressions of physiological processes in ecological scenarios
5. Integrate diverse information to propose new research that would extend knowledge, by working in small groups (undergraduates) or singly (graduate students)

GRADING

Grades in the course will be calculated approximately as follows:

Items that are graded	Points
9 Problem sets @ 20 points	180
Synthetic management problem	50
Main writing assignment	
Synopsis of prior proposal	20
Literature search assignment	20
Original proposal synopsis [group[1]]	40
Full proposal [group[1]]	200
Quizzes & Exams	
3 midterm exams @ 114	342
Comprehensive final exam	150
TOTAL POINTS	~1000

[1]group work for undergraduates, but solo work for graduate students

Final grades are not curved. Based on performance of other classes in the past few years, an average score is 732 points. Approximate points necessary for each grade are:

For A, > 860 points
For AB, >800 points
For B, > 740 points
For BC, > 680 points
For C, >570 points

DISCUSSION SESSIONS

On either Wednesday or Thursday afternoon you participate in a Discussion section. Activities vary from week to week (see detailed schedule).

i. Some meetings are centered on **problem sets**. The problem sets are handed in for credit. Unless indicated otherwise, problem sets are to be turned in by midnight on the Thursday of the week after they are handed out. They will not be accepted late, without prior consent from the instructors. ***Problem sets must be turned in through Canvas in the appropriate folder and not e-mailed to instructor or grader.*** Assignments may be scanned or uploaded as word/pdf.

Here are **instructions for submitting your assignment through Canvas**: Open assignments tab and navigate to the correct assignment. Click the red "Submit Assignment" button. Upload a file by clicking the "Choose File" button which opens a file window. Locate and click on the correct file. Click "Submit Assignment." Once an assignment is submitted correctly, you will be re-directed to the original assignment page and there will be a red box in the right sidebar that says "Re-submit Assignment."

ii. Some meetings are instructor presentations along with discussions centered around readings or other material that complement the lectures. These materials will be placed on the course web page. To guide your preparation for the discussions, use the list of questions handed out for some discussions. You are responsible on examinations for material covered in these discussions

iii. Three meetings are midterm examinations

REQUIRED TEXTBOOK, SOFTWARE & OTHER COURSE MATERIALS

Reading assignments – Pages in the textbook Animal Physiology, 4th edition (2016) by Hill,R.W., G.A. Wyse, and M. Anderson, Sinauer Associates, Inc., Sunderland, Massachusetts are assigned for many lectures. The course schedule has these reading assignments. A few other required readings are also assigned, from Physiological Ecology: How Animals Process Energy, Nutrients, and Toxins [2007] by Karasov, W.H. & Martinez del Rio, C., Princeton University Press. Check for copies of these books on Reserve at Steenbock Library.

EXAMS, QUIZZES, PAPERS & OTHER MAJOR GRADED WORK

- There are 3 midterm exams and 1 final comprehensive exam - dates on course schedule. If you have conflicts on the scheduled dates you should inform the course instructor ahead of time. Without advance notice, there will be no accommodation for missed quizzes or exams.
- Exams could include multiple-choice, true/false, short-answer questions, calculations, and essay questions. (Previous examinations will be made available, so you can see what they are like). *Bring to the exams your course notes, which you can use on most calculation problems, and a scientific calculator that can perform logarithmic and power transformations.*

HOMEWORK & OTHER ASSIGNMENTS

- Unless indicated otherwise, you are to work alone in preparing your homework and assignments. You may work with other students on the 9 Problem sets @ 20 points.
- As indicated above (under 'discussion sections'), problem sets are to be uploaded to the online Canvas course page.

Writing assignments –

(1) The first writing assignment is to write a synopsis of a prior research proposal. This assignment is due at Discussion section #3 on Sept. 18/19. There is a separate handout explaining this assignment.

(2) The second writing assignment will be a synopsis of a research proposal on a topic of your choice, due by midnight Oct. 27. Undergraduates will work on this in a small group (3-4 students); graduate students will work alone. The proposal is an exercise in picking a problem and designing an attack on it. There is separate material handed out about this assignment. Your synopsis is graded and you will receive feedback to use in preparation of the full proposal.

(3) The third writing assignment is the full proposal.

a) If your group turns in the written proposal early, by midnight Wednesday Nov. 20, it will be evaluated and returned to your group with a grade by Wednesday Nov. 27. If you choose, you can later turn in a revision of the proposal that addresses the critique, and your grade may be improved.

b) The deadline for turning in revisions, or your first and only submission, is midnight Wednesday Dec. 11.