

VERTEBRATE PHYSIOLOGY LABORATORY

Information and Policies

FALL 2008

INSTRUCTORS:

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COURSE COMMUNICATIONS: We will be communicating with you as necessary using the portal, so be sure to check your portal email account.

MEETING TIMES:

Biol 411-01 (LC-J)	M 10:30 - 11:20	Albers 203
	W 10:30 - 1:20	
Biol 411-02 (KT)	M 11:30 - 12:20	Albers 203
	F 11:30 - 2:20	
Biol 411-03 (NN)	M 3:00 - 3:50	Albers 203
	W 2:30 - 5:20	
Biol 411-04 (LC-J)	T 10:00 - 10:50	Albers 203
	R 10:00 - 12:50	
Biol 411-05 (KT)	T 2:00 - 2:50	Albers 203
	R 2:00 - 4:50	
Biol 411-06 (NN)	M 4:00 - 4:50	Albers 203
	F 2:30 - 5:20	

REQUIRED BOOKS:

A Short Guide to Writing About Biology, Jan A. Pechenik, Fifth Edition, Pearson Education-Longman, New York, 2007. (ISBN 0-321-38592-6)

Human Physiology, An Integrated Approach, Fourth Edition, Dee Unglaub Silverthorn, Pearson Education-Benjamin Cummings, San Francisco, CA, 2007. (ISBN 0-8053-6849-3) (Same book used for lecture.)

REQUIRED ITEMS: Flash/jump drive if you want portable storage; portal email to yourself is acceptable mode of transmission; 3-ring binder (1½ in. minimum-you will receive many handouts!)

COURSE DESCRIPTION: This course will utilize an empirical approach to explore the principles underlying physiological processes in vertebrates. To gain an understanding of the scientific process, you will carry out measurements of physiological parameters under normal conditions and then assess the effects of experimental manipulations on these parameters. While the experimental aspect of the scientific process provides new information, the process only moves forward if there is effective communication of the results obtained. Therefore, you will be required to communicate the results you obtain in two ways. First, you will explain the results of your experiments by writing a paper in the standard scientific form (journal format). In addition, you will be collecting and analyzing data generated from a previous lab session and presenting your analysis to the class, facilitating discussion of those data. In order to bring new information into the body of scientific literature, that information must be reviewed and accepted by other

scientists. You will be participating in a peer review process in which you anonymously review papers from other students.

COURSE GOALS: There are several goals for this course:

- 1) To increase your knowledge of physiology: Some of the work of the lab will reinforce and extend knowledge you will gain from the lecture portion of the course, while other labs will cover topics not discussed in lecture.
- 2) To increase your communication abilities: Regardless of your future plans, the ability to communicate clearly and effectively will be important for success. In this course, you will work on both oral communication skills through developing a PowerPoint presentation and writing a journal-format paper.
- 3) To develop your skill in using the scientific method: You will have practice exercises and carry out an experiment, as well as reinforcing the method through other lab exercises.

READING: You are responsible for reading handouts and any relevant information in the physiology text of your choice **prior** to the pre-lab session.

PRE-LAB AND POSTLAB QUIZZES: Each week, you will be given a 2 point prep quiz on the lab to be done that week. As indicated on the schedule, these prelab quizzes will sometimes stand alone (five quizzes); or, on weeks where there is a postlab quiz scheduled, the 2 pre-lab points will be added onto those quizzes (7 quizzes). The five prelab quizzes will be added together and count as one quiz grade. This gives you a total of 8 quiz scores; with the exception of the prelab quiz score, you will be allowed to drop the quiz with the lowest score. Quiz material will come from the textbook, from the information given in pre-laboratory and post-laboratory presentations as well as information from the exercise or experiment itself (methods, calculations, conclusions).

WRITTEN ASSIGNMENTS: In order to facilitate post-laboratory discussions, you will be given questions on each week's laboratory that must be completed ***before* the post-laboratory analysis is presented**. In addition, there will be several worksheets and other assignments given over the course of the semester. Your work will be submitted just prior to the postlaboratory analysis and you will earn credit on a "done/not done" basis. ("Done" means totally completed). Your instructor will calculate the percentage of assignments that you submit over the semester, and this number will be weighted as one quiz score (will not be dropped). (This will give you a total of 9 quiz scores.)

WRITTEN LAB ARTICLE: You will be required to write individual sections of an article and submit them for evaluation. As each individual section is evaluated, you will have the chance to improve your score on the writing assignment. You will be revising the individual sections immediately after receiving feedback and ultimately compiling them into one full lab article. These reports will be weighted as follows:

- 1) Individual sections 60% of total Lab Article score
- 2) Full Report 40% of total Lab Article score

Writing Guidelines: Guidelines for writing these articles can be found in a Writer's Guide we will provide, as well as the Pechenik text. In addition, we will hold optional Writer's Workshops to discuss how to write the paper, dates TBA.

Submission of Papers: The due dates for these assignments are indicated in the lab schedule. All writing assignments will be submitted in two ways:

1. You will submit a hard copy to your instructor for evaluation.
 2. You will submit an electronic copy via turnitin.com. (Instructions for this will be provided later.)
- Your work must be submitted **by 4:00 p.m.** on the due date for full credit. Papers submitted after class but on the due date must be initialed and date/time indicated. Papers that are turned in late will lose **10% of the original number of points earned on the paper, deducted for each day the paper is late.**

POST-LABORATORY ANALYSES: Your lab team will present collated data from assigned lab sessions and facilitate discussion of these data, as indicated in the lab schedule. These presentations are to be limited to a maximum of twenty minutes. Based upon the quality of the presentation, you will earn from 1-5 points (which will constitute 5% of your total lab score). These presentations are important, as your classmates will be relying on you for information that may appear on quizzes.

PEER REVIEW: You will read and review two lab reports. These reports will be assigned at random by your instructor. You will earn credit for the peer review papers based on the quality of your review, to be added to your total in the written assignment section. These reviews are due **as indicated by your instructor**. Late peer review submissions will receive **no** credit.

ATTENDANCE POLICY: As the lab work is done as a team effort, your attendance in lab is **required** in order for you to earn any credit for that particular week's material. If you have an excused absence (this should be a rare occurrence), you are expected to make arrangements with an instructor to attend another lab session during that week. It is your responsibility to inform your instructor of any alternate arrangement that you make. If you do not make up the lab, you will receive 0 points for any assignment or quiz associated with that week.

POLICY ON ACADEMIC HONESTY: This class operates on a strict honor code. Plagiarism and cheating (including the sharing of information on or about quizzes/tests) are considered to be violations of this code. The University policy on academic honesty can be found on page 54 of the 2006-2008 University Catalog. Disciplinary action may range from earning a zero for that work to expulsion from the University. All infractions will be reported to the Chair of the Biology Department and the Dean of the College of Arts and Sciences.

SPECIAL CASE: Plagiarism: Plagiarism is defined as the following: "to take and pass off as one's own (the ideas, writings, etc. of another)" (Webster's Deluxe Unabridged Dictionary, Second Edition, Dorset and Baber: New York, New York, 1983). Plagiarism will be clearly defined for you in an upcoming handout.

SPECIAL NOTE: Photocopying graphs, drawings, or figures from published works and using them in reports is a copyright infringement. To do this legitimately, you must have written permission from the publisher. If you wish to use a drawing to illustrate your report, you may make your own drawing, but you must credit the source. Your citation should be on the figure and should say "Adapted from (author's name(s), year)." Be sure to include this reference in the Literature Cited section of your report.

PENALTIES FOR PLAGIARISM OFFENSES: For this class, plagiarism will not be tolerated. **Plagiarism of the ideas, figures, graphs or words of others will result in a score of zero for that work.** If there is a second offense, you will fail the class. **All** offenses will be reported to the Chair of the Biology Department and the Dean of the College of Arts and Sciences.

ASSESSMENT: Points earned for each opportunity will be weighted as follows for your final grade:

Quiz Scores (best 6 of 7 postlab quizzes, plus score for prelab quizzes and written assignment "quiz" score)	65%
Lab Reports (sections and final version)	30%
Post-Laboratory Analysis Presentation	5%

GRADING: Your grade will be based upon the points you earn for the semester.

A: 93-100%	B+: 87-89%	C+: 77-79%	D+: 67-69%	F: < 60%
A-: 90-92%	B: 83-86%	C: 73-76%	D: 63-66%	
	B-: 80-82%	C-: 70-72%	D-: 60-62%	