

Animal Physiology (Bio 350) Fall 2011

Lecture Instructor: Dr. Robin Cooper

Email: RLCOOP1@email.uky.edu

If you email me, please allow up to 48 h for a response. Be sure to include *BIO 350* in the subject line of the email so the email will not be mistaken for junk mail.

Phone: (859) 257-5950

Office Location: Room 226 Biology

Website: <http://web.as.uky.edu/Biology/faculty/cooper/default.htm>

Laboratory Instructor: Dr. Melody Danley

Email: mlda227@uky.edu

If you email me, please allow up to 48 h for a response. Be sure to include *BIO 350* in the subject line of the email so the email will not be mistaken for junk mail.

Office hours: Immediately after lab, and by appointment.

Office Location: Room 216A Biology (I will be moving offices mid-semester to 200A, right next to the physiology teaching lab)

Graduate Teaching Assistants

Mr. Cliff Harpole, ceharpole@uky.edu

Ms. Rachel Holsinger, rcholsinger@uky.edu

Ms. WenHui Wu, wuwenhui2@gmail.com

General Course Information

Credits: 4 credit hours

Lecture Location: Room 107 Biology

Lecture Time: Tuesdays and Thursdays 8:00 to 9:15 AM

Lab Location: Room 202 Biology

Lab Times vary as follows:

Section 001: 8-10:50 Monday (Mr. Cliff Harpole ceharpole@uky.edu)

Section 002: 11-13:50 Monday (Ms. Rachel Holsinger, rcholsinger@uky.edu)

Section 003: 14-16:50 Monday (Ms. WenHui Wu wuwenhui2@gmail.com)

Section 004: 8-10:50 Wednesday (Mr. Cliff Harpole ceharpole@uky.edu)

Section 005: 11-13:50 Wednesday (Ms. Rachel Holsinger, rcholsinger@uky.edu)

Section 006: 14-16:50 Wednesday (Ms. WenHui Wu wuwenhui2@gmail.com)

Students must attend only that lab section in which they are officially enrolled. If you are absent for your regularly scheduled lab time, you may not "just show up" for a different section to make-up the missed lab. If you show up unannounced and without instructor consent for a different lab section, you will be asked to leave.

Course Description: An introduction to the basic principles of animal physiology. An elementary discussion of the major vertebrate organ systems including nutrition, metabolism, respiration, circulation, excretion, muscle contraction, peripheral and central nervous system, and endocrine function emphasizing homeostasis. Lecture, three hours; laboratory, three hours.

Course Prerequisites: BIO 150-153 or equivalent introductory biology sequence, BIO 315, and CHE 105, CHE 107.

Official Course Text

Eckert Animal Physiology: Mechanisms and Adaptations, Fifth Edition, by David Randall, Warren Burggren, and Kathleen French.

<http://www.whfreeman.com/newcatalog.aspx?isbn=0716738635>

Other Course Materials

You will need a scientific calculator for lecture and laboratory activities. A calculator should be brought to all lectures and labs. Use of the calculator function on a cell phone or computer is not acceptable, and will not be allowed during quizzes or exams.

There is no separate lab manual to purchase. All lecture and lab hand-outs are available for download by accessing the course website. Bio 350 Web Page (home page):

<http://web.as.uky.edu/Biology/faculty/cooper/bio350/TEACHING350FALL2011.htm>

Organization of Bio 350 Animal Physiology: This course includes both lecture and lab components. The lecture content is organized, presented and overseen by Dr. Robin Cooper. The laboratory content is organized and overseen by Dr. Melody Danley. In addition, each laboratory section has one TA (graduate teaching assistant) that will help guide students through the hands-on portion of the lab, as well as grade all lab submissions. Each lab section has been set-up with a separate lab web page where collected lab data will be posted. This is the data that should be used for the lab report write ups (see below). The data will also be discussed in lecture, and may be used during lecture exams. Content presented in lecture and laboratories are expected to be integrative such that content on quizzes in lecture or the lab can be mixed. No laboratory section will have an advantage over the others as quizzes are different for each section and lecture exams are constructed so as not to cover content that particular sections might not have been exposed to.

The "manual" for the lab exercises will be posted online within the web pages for each experiment. There is no separate lab manual to purchase. You will be responsible for printing out or having, in some means, the protocol to use for each laboratory period. Hard copies will not be provided. We cannot guarantee that the laboratories will have internet access during the lab period, so come prepared with a hard copy.

BIO 350 Grade Progress

Grades for all exams, labs reports, journal submissions, and quizzes will be made available through Blackboard. Space is also provided in the table below for you to track your progress through the course.

Item	Max point value	Your Points Earned
Exam 1	100	
Exam 2	100	
Exam 3	100	
Exam 4 (Final Exam)	150	
Lab Quizzes	40	
Lab Reports	30	
Journal Manuscript	30	
Lab Attendance/participation	30	
Total Points for Course	580	

Final course are assigned based on the total points accumulated during the semester. Final course grades are assigned as follows:

522 points to 580 points = A

464 points to 521 points = B

406 points to 463 points = C

348 points to 405 points = D

Less than 348 points = E

Components of the grade

Mid-semester Exams 1, 2, and 3: Exams will cover material from lectures, assigned readings, associated labs, and other assigned topics. Exams dates are given on the topical outline below. Mid-semester exams are not cumulative. Content for the exams comes from both lecture and lab material, and may be composed of multiple choice questions, short answer, essay, and/or fill-in-the-blank questions. Scantron forms will be provided for you. Bring a #2 pencil and your UK ID with you to each exam. **NOTE: You might not be**

permitted to take an exam if you do not have your UK ID with you. Exam results and answer keys will be posted on Blackboard following the exam date.

Final Exam: The final exam (Exam 4) is cumulative and will cover any and all material from the entire semester. The final exam will be composed of multiple choice questions, short answer, essay, and fill-in-the-blank questions. Content for the exam will come from both lecture and lab material.

Lab Quizzes: Each lab exercise has a web page associated with it. On the web page one will find movies, protocols to conduct the laboratory exercises, and hand-outs, and other resources to download. It is expected that you will view the movie and laboratory protocols prior to coming to the lab period. Throughout the semester, approximately 10 unannounced quizzes will be given. Each quiz will address content from the purpose of the laboratory exercise and the basics of how the lab activity will be conducted.

Lab Quizzes are given during the first 10 minutes of lab. If you are late and the quiz is in progress, you will not be given extra time. If you arrive more than 10 minutes late to lab, you will not be permitted to take the quiz. Quizzes are not announced in advance. Quizzes will be normalized to equal 40 points, Quizzes are worth 5 points each approximately, depending on the number of labs conducted. The two lowest quiz scores will be dropped.

Lab Reports: Reports are collected for every lab completed during the semester. In general, completed reports are due at the start of lab the following week. Each report should include introduction, methods, results and discussion sections (two page minimum, five page maximum), plus any summarizing graphs or tables. All work must be computer generated, and properly formatted. Statistical analysis is REQUIRED and discussion of the analysis is expected. No hand written reports (including graphs/tables) are allowed. Students that miss a lab as a result of an unexcused absence, or those failing to provide proper documentation for absences, or those that do not submit work by the submission deadline will not be allowed to make-up the missed work, submit a lab report for credit, or submit work late. Late assignments submitted as a result of unexcused absences will not be accepted. Such submissions (if submitted anyways) will receive an automatic **zero points!** All lab reports must be submitted online through the Safe Assign link available on Blackboard. A separate link will be made available for each lab report due. After the deadline for the report has passed, the link is automatically deactivated, and is no longer available. If you are unable to successfully submit your report through Safe Assign, it is your responsibility to email a copy of the report in MS Word format, to your TA BEFORE THE DEADLINE has passed. Late submissions will not be accepted. Failure to submit your weekly lab reports will negatively affect your lab attendance points, and may negatively affect your lab report points.

A sample report will be provided at the start of the semester. Reports will be used (in part) to assign lab attendance points at the end of the semester. In addition, submissions from three randomly chosen labs will be graded for lab report points. Each graded report will be worth up to 10 points. (30 points total)

Journal Manuscript: There will be one formal journal manuscript write-up due this semester, worth up to 30 points. The manuscript is intended to mimic the research manuscript writing and submission processes required for scientific publication, and will utilize results collected during one of the lab activities. The manuscript must be written independently (no group submissions) and is due no later than Tuesday, November 22, 2011. In addition, one lab session (October 17, Oct 19) will be dedicated to demonstrating and practicing proper formatting of the manuscript, as well as data to be used by each lab section. The writing format described by the Journal of Comparative Biochemistry and Physiology - Part A: Molecular & Integrative Physiology will be used. Go to the journal's web page and look up information for authors at: http://www.elsevier.com/wps/find/journaldescription.cws_home/525464/description

The "guide to authors" provided by the journal provides the formatting guidelines that must be followed for this assignment. Additional information for this assignment will be made available through lab and posted on the course website.

Lab Attendance/Participation: Lab attendance and participation is mandatory for this course. Attendance will be taken every lab by the TA's. It is your (the student's) responsibility to ensure you sign-in each week with your TA, complete all activities, clean-up your workstation, and submit all necessary work to receive credit. Students attending and completing all labs (no absences and all work completed) will receive 30 attendance/participation points towards their overall grade for the course. Students are **deducted 15 points**