BIOL 3450/5450: Animal/Vertebrate Physiology
Syllabus Spring 2008

Lecture (BC 1025): Tuesday and Thursday 8:00-9:15 a.m.
Laboratory (BC 2070): Monday 9;00-11:50 a.m. (section A)
Monday 1:00-3:50 p.m. (section B)

Instructor: Dr. Theresa J. Grove
Office: BC 1099
Office hours: Thursday 9:30-11:30 a.m. (or BY APPOINTMENT)
Phone: 333-5336
Email: tjgrove@valdosta.edu (do not email me on Blazeview)

Prerequisites:
Old curriculum: BIOL 2230, BIOL 2270, CHEM 1212 or permission of Instructor.
New curriculum: BIOL1107 and BIOL1108, CHEM 1212 or permission of Instructor.

Textbook: Hill, Wyse and Anderson. Animal Physiology 2nd edition (2008) (ISBN 978-0-87893-317-4)

Goals: In this course you will learn the basic principles of animal physiology. We will use a comparative approach to examine physiological systems at different levels of biological organization including organismal, organ system, organ, tissue, cellular and molecular levels. You will also learn to analyze and interpret data obtained during lab periods, and you will gain experience reading and interpreting scientific literature in diverse areas of animal physiology.

These objectives support the Department of Biology Educational Outcomes #'s 1, 3, 4 and the Valdosta State University General Educational Outcomes #'s 3, 4, 5, 7.

Attendance: Attendance in lecture is expected by all students, but is not required. Attendance to lab is required. Any student who misses 2 labs without an acceptable excuse (as determined by the instructor) will receive a failing grade (F) in the course.

Conduct: Arrive on time to lecture and lab. Turn off cell phones during class and lab; there is no reason you should be texting or calling anyone. Don't talk during lecture; if you don't understand something or didn't hear something ask. Unless it's an emergency (and using your cell phone does not constitute an emergency) do not get up in the middle of lecture, leave and come back. During exams NOBODY can leave the exam and re-enter the exam room. If a student leaves, their exam will be graded as is; the student will not be allowed to finish the exam.

Assessments for Biol 5450: Grades will be based on:

Exams (4 at 100 points each)	400 points
Homework and Lab Quizzes	~100 points
Lab Report	50 points
Paper (10 pages)	50 points
Comprehensive Final	100 points
Total:	700 points

Assessments for Biol 3450: Grades will be based on the following

Exams (4 at 100 points each)	400 points
Homework and Lab Quizzes	~100 points
Lab Report	50 points
Paper (5 pages)	50 points
Final	100 points
Total:	700 points

Grade Scale:
A 90-100%
B 80-89%
C 70-79%
D 60-69%
F < 60

Access to Slides/Information: Lecture slides will be made available on BlazeView by 5:00pm the day before lecture. These slides will not have all the information on them; it is the student's responsibility to come to class and take notes. Students are responsible for getting the notes from other students if they miss a lecture. The professor will NOT email notes that are missed.

Exams: Four exams (excluding the final) will be given throughout the semester. Each exam will be 100 points and will consist of a variety of types of questions that may include (but aren't limited to) matching, multiple choice, labeling, fill in the blank, and essay. It is the instructor's prerogative to accept (or not accept) an excuse for a missed exam; therefore, DO NOT MISS EXAMS! If an absence is approved, the instructor reserves the right to change the format of the exam (i.e. an oral exam or essay exam).

Homework: These will include various lab assignments that involve students analyzing lab data, as well as reading papers and answering questions associated to the papers. Students will have 1 week to turn in these assignments. Late assignments will not be graded and students will earn a zero for that assignment.

Lab Report and Paper: More information will be handed out on these within the first month of class.

Lab: Lab exercises will be available on WebCT or will be handed out in class prior to the lab period. It is your responsibility to read them before coming to lab. Short quizzes will be given during the lab and will be based on the previous week's lab and the objectives of the current week's lab. The quizzes will be given immediately at the start of the lab and will be collected 10 minutes later. If you arrive late you will have a shorter amount of time to finish the quiz, and if you arrive after the quiz is collected you will receive a zero (0) for that quiz. As mentioned previously, a student will not be able to make up a lab. For every lab you arrive >5 minutes late you will lose 10 points from your total points.

Part of the lab period may also be used to discuss scientific papers that were handed out the week before. These discussion periods will be immediately after the quiz, before the experiment of the day.

No eating or drinking in the lab. Do not send text messages or make phone calls during lab.

Final Exam: The final is cumulative and will be multiple choice. Students who receive >90 (no exceptions) on all 4 regular in-class exams have the option of taking the final. The final exam is scheduled for Wednesday, May 2, 2012 10:15a.m.- 12:15 p.m. No early exams will be given.

Withdrawing from the course: The last day to withdraw without penalty is February 29, 2012. If you don't officially withdraw, and instead just stop coming to class, you will receive an F for the course.

Academic conduct: Cheating and plagiarism will not be tolerated and may result in a failing grade for the assignment or the class. Refer to the Biology Department's Plagiarism Policy. All work turned in is subject to submission to SafeAssign or a similar program to detect plagiarism.

Privacy Act (FERPA): The Family Educational Rights and Privacy Act (FERPA) prohibits the public posting of grades by social security number or in any manner personally identifiable to the individual student. No grades can be given over the telephone, as positive identification can't be made by this manner.

Students with disabilities: Students requiring special accommodations because of disability must discuss their needs with me as soon as possible. Those needing accommodations who are not registered with the Special Services Program must contact the Access Office for Students with Disabilities located in Farber Hall. The phone numbers are 245-2498 (voice) and 219-1348 (tty).

Tentative Schedule

This is a tentative lecture schedule. The instructor reserves the right to modify this schedule including exam dates.

Date	Topic	Chapter
January 10	Introduction to Animal Physiology, Molecules and Cells in Physiology	1, 2
January 12	Enzymes, Cell Signaling, Transport of Solutes and Water, Metabolism	2, 4, 6
January 17	Metabolism, select topics in Energetics	6, 7, 8
January 19	Thermal Physiology	9
January 24	Mammals in Frigid Places	3, 10
January 26	Catch-up and Review	
January 31	**Exam 1**	
February 2	Neurons	11
February 7	Synapses	12
February 9	Sensory Processes	13
February 14	Nervous System Organization	14
February 16	Control of Movement	18
February 21	Muscle	19, 20
Februrary 23	Muscle (cont'd)	19, 20
February 28	**Exam 2**	
March 1	Oxygen and Carbon Dioxide Physiology	21
March 6	Physiology of Breathing	22
March 8	Transport of Oxygen and Carbon Dioxide	23
March 13	**Spring Break**	
March 15	**Spring Break**	
March 20	Circulation	24
March 22	Diving in Marine Mammals	25
March 27	Catch-up and Review	
March 29	**Exam 3**	
April 3	Nutrition, Feeding and Digestion	5
April 5	Energy Metabolism	6
April 10	Water and Salt Physiology	26, 27
April 12	Water and Salt Physiology	26, 27
April 17	Kidneys and Excretion and Mammals of Deserts and Dry Savannahs	28, 29
April 19	Reproduction	16
April24	Catch-up and Review	
April 26	**Exam 4**	

Note: Endocrine and Neuroendocrine Physiology (15) will be integrated with the lectures when relevant.

Wicked Tentative Lecture Schedule

Labs may change from what is listed below

Date	Lab
January 9	No lab
January 16	No lab: MLK Holiday
January 23	How to read a scientific paper
January 30	Introduction to Powerlab
February 6	Reflexes
February 13	EOGs
February 20	Earthworm smooth muscle
February 27	Fish on Prozac
March 5	Myosin ATPase and myofibril organization
March 12	Diving Reflex
March 19	Respiratory airflow
March 26	Daphnia cardiac physiology
April 2	ECGs
April 9	Excretory lab
April 16	Cockroach digestion lab
April 23	Polygraphs
April 30	Open lab to review exams for final