

# BIOL 3450: Animal Physiology Syllabus Summer 2014

**Lecture (BC 1025):** \*Monday-Friday 11:00 a.m.-1:35 p.m.

**Laboratory (BC 2070):** \*Monday-Friday 2:00-4:35 p.m.

\* There may be days when we have lab period swapped with lecture period and vice versa.

**Instructor:** Dr. Theresa J. Grove

**Office:** BC 1099

**Office hours:** By appointment

**Phone:** 333-5336

**Email:** tjgrove@valdosta.edu (do not email me on Blazeview)

## Prerequisites:

BIOL1107 and BIOL1108, CHEM 1212 or permission of Instructor.

**Textbook:** Animal Physiology: From Genes to Organisms, Sherwood et al. 2<sup>nd</sup> edition (978-0-8400-6865-1)

**Pace:** I will cover the same amount of content over 17 days (excluding weekends) this summer that I teach during a “regular” semester. Each lecture is approximately one week’s worth of material from a ‘regular’ semester. Commit yourselves early, do not get behind, and focus. If you decided to take another class in parallel with Animal Physiology be prepared to have a busy 3 weeks; it was your decision.

**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:** Because this course is only ~ 3 weeks long, attendance in both lecture and lab is required. Any student who misses 3 labs or 3 lectures without an acceptable excuse (as determined by me) will not be able to earn higher than a ‘D’ in the course. Keep this in mind if you skip a couple of classes early on in the course, because if suddenly you have an emergency, you may meet this limit and you will not ‘pass’ this class.

**Conduct:** Arrive on time to lecture and lab. If a pattern emerges where people arrive late to lecture, I will either start locking the door (which will count as an absence), or have assignments due at the start of lecture (no late assignments accepted), or have quizzes (or another type of assignment) in within the first 5 minutes of class. Turn off cell phones during class and lab. Don’t talk to each other when I am lecturing; 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 (except extreme emergencies), their exam will be graded as is; the student will not be allowed to finish the exam.

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

|                                   |            |
|-----------------------------------|------------|
| Exams (4 at 100 points each)      | 400 points |
| Homework and Quizzes              | ~50 points |
| Lab Reports (3 at 25 points each) | 75 points  |
| Final Lab Quiz                    | 50 points  |
| Final Exam                        | 100 points |
| Total:                            | 675 points |

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

**Access to Slides/Information:** With the exception of the first lecture (Chapters 1-3) 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. I will NOT email notes or let you come into my office and copy slides that are missed.

**Exams:** ~20% of each exam will cover key topics from previous exams to help prepare you for the cumulative final. Four exams (excluding the final) will be given. 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. 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. Emailed assignments are not accepted.

**Lab Reports:** These will include detailed analysis of experiments conducted in lab. More information will be given in lab.

**Lab:** Lab exercises will be handed out at the start of the lab period. I will explain at the beginning of lab, what you will be doing. 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 after the explanation/lecture and will be collected 10 minutes later. 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.

Each Friday the lab period will be used to discuss scientific papers that were handed out during previous lab periods. Participation is required, and quizzes about the papers will be given (more information will be provided in lab).

No eating or drinking in the lab; I will ask you to take the food outside or throw it away. Do not send text messages or make phone calls during lab.

**Final Lab "Quiz":** A cumulative quiz covering all topics covered in lab, including scientific papers. This will be given on July 1 during lab.

**Final Exam:** The final is cumulative and will be multiple choice. Students who receive  $\geq 90$  (no 89s or lower) on all 4 regular in-class exams have the option of taking the final. The final exam is scheduled for Thursday, July 3. In general no early exams will be given.

**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 or email, 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 Lecture Schedule

I reserve the right to modify this schedule including exam dates.

| Day     | Topic  | Chapter  |
|---------|--|----------|
| June 11 | Introduction to Physiology, Cell and Molecular Physiology, Membrane Physiology                           | 1, 2, 3  |
| June 12 | Neuronal Physiology<br>Nervous Systems   | 4<br>5   |
| June 13 | Nervous Systems (cont'd)<br>Sensory Systems  | 5<br>6   |
| June 16 | <b>Exam 1: 11:00-12:15 (Introduction thru Sensory Systems)</b><br>Endocrine Systems                      | 7        |
| June 17 | Endocrine Systems (cont'd)<br>Muscle Physiology  | 7<br>8   |
| June 18 | Muscle Physiology (cont'd)<br>Circulatory Systems  | 8<br>9   |
| June 19 | Circulatory Systems (cont'd)<br>Defense Systems  | 9<br>10  |
| June 20 | <b>Exam 2: 11:00-12:15 (Endocrine Systems through Circulatory Systems)</b><br>Respiratory Systems        | 11       |
| June 23 | Respiratory Systems (cont'd)   | 11       |
| June 24 | Excretory Systems  | 12       |
| June 25 | Excretory Systems (cont'd)<br>Fluid and Ion Balance  | 12<br>13 |
| June 26 | <b>Exam 3: 11:00-12:15 (Defense Systems through Excretory Systems)</b><br>Fluid and Ion Balance (cont'd) | 13       |
| June 27 | Digestive System   | 14       |
| June 30 | Energy Balance and Thermal Physiology  | 15       |
| July 1  | Reproductive Systems   | 16       |
| July 2  | <b>Exam 4: 11:00-12:15 (through Reproductive Systems)</b><br>Review for final exam                       |          |
| July 3  | <b>Final Exam</b>  |          |

## Wicked Tentative Lab Schedule

Labs may change from what is listed below.

| Date    | Lab  |
|---------|--|
| June 11 | How to read a scientific paper: Hand out paper for discussion on June 13 |
| June 12 | Introduction to Powerlab   |
| June 13 | Scientific Paper Discussion. Hand out paper for discussion on June 20    |
| June 16 | Reflexes   |
| June 17 | EOGs   |
| June 18 | Myosin Protein Comparison Lab  |
| June 19 | ECGs   |
| June 20 | Scientific Paper Discussion. Hand out paper for discussion on June 30    |
| June 23 | Respiratory airflow  |
| June 24 | Diving Reflex  |
| June 25 | Oxygen consumption experiment  |
| June 26 | C. elegans experiment  |
| June 27 | Cockroach digestion experiment   |
| June 30 | Scientific Paper Discussion  |
| July 1  | Cumulative Lab Quiz  |
| July 2  | Open lab to prepare for Final Exam                                       |