

COURSE INFORMATION
COMPARATIVE VERTEBRATE ANATOMY
EEB 350, Spring 2005

Lecturer

Dr. Marguerite Butler

Office: 657B Dabney

e-mail: mabutler@utk.edu

Phone: 4-7894

Hours: after class or by appointment

Laboratory Instructors

Justin Walguarnery (T/Th lab)

e-mail: jwalguar@utk.edu

Jeff Scales (M/W lab)

e-mail: jcales2@utk.edu

Hours: by appointment

Credit Hours: 4

Lectures meet Tuesday and Thursday from 8:10 to 9:25am in EPS room 405.

Laboratories meet according to the following schedule:

Section 32460 T & Th	12:40 to 3:25	WBA102
Section 32473 M & W	11:15 to 1:10	WBA102

All labs meet in Room 102 West Annex (WBA102).

Each student must be enrolled in a laboratory section.

Text Book: Liem, K. F., Bemis, W. E., Walker, W. F., and Grande L. 2001. *Functional Anatomy of the Vertebrates: An Evolutionary Perspective*, 3rd Edition. Brooks/Cole, CA.

Lab Manual: Homberger, D. G. and Walker, W. F. 2004. *Vertebrate Dissection*, 9th Edition. Brooks/Cole, CA.

Dissecting kits are available at the U.T. Campus Store. Each student must bring these dissecting instruments to each lab session:

- Scalpel with replaceable blades
- Scissors (1-1 1/2 inch blades, with at least 1 sharp point)
- Blunt metal probe
- 2 wooden or plastic handled dissecting needles

Tests and Grades

Lecture: Three exams, 1-2 quizzes.

Quizzes 10% of lecture grade

1st exam 30% of lecture grade

2nd exam 30% of lecture grade

3rd exam 30% of lecture grade

Laboratory: Two laboratory practical exams, quizzes and assignments.

Mini-practical 10% of lab grade

1 st practical	35% of lab grade
2 nd practical	35% of lab grade
Lab Notebook	20% of lab grade

All exams will be comprehensive. They will be more heavily weighted towards the recent material, but you will be responsible for all material covered to date.

Grade Composition: The final grade will be weighted as follows: 60% lecture grade, 40% lab grade. You must pass both lecture and lab portions in order to pass the course.

Policy for Make-up Exams

No make-up exams. Two exceptions (excuse must be verified): (1) physicians order for strict bed-rest on the day of the exam. The illness must be documented with a note from a physician with a phone number. (2) Genuine medical emergency (e.g., serious accident, death in the family) which can be verified and prevents attendance at the exam.

If a student misses an exam and cannot produce a valid excuse (as defined above), that student will receive a zero for the exam.

Academic Honesty

There is a zero tolerance policy on cheating. *Anyone cheating on an exam or assignment in the course will automatically receive a grade of "F".*

Scope of the Course

EEB 350 is an updated Comparative Vertebrate Anatomy course. During the course of the semester, we will learn the basic components of the vertebrate body plan, how it arises during development, how the body plan has been modified in each of the major lineages, and in response to major shifts in environment and function. In addition to learning anatomy, you will synthesize concepts from: functional morphology, biomechanics, evolutionary history, development, physiology, and adaptation to new environments in order to comprehend and explain the diversity of life exhibited by vertebrates.

Advice on Doing Well in the Course

We will cover an immense amount of material. The challenge for you is to organize, synthesize, absorb, and make sense of everything that can potentially inform your understanding. You will need to do a lot of memorization, but you will also need to achieve a deeper understanding of how the systems work, and you will be asked to demonstrate your understanding by providing logical explanations of biological observations. You may be asked to put a different twist on your explanation than was given in class. *You will need to understand the concepts in order to do well.*

- (1) Take lots of notes
 - a. *You must attend class to do well.* We will deviate from the book. Topics emphasized in class will appear prominently on exams.
 - b. *Write, write, write.* DON'T just "sit back and listen" to the lecture. Passive learning doesn't work for this kind of class. In order to absorb this amount of material in one semester, you will need to challenge your brain with as many input modes as possible (writing, seeing, listening, explaining back)
 - c. *Recopy your notes.* Give your brain several chances to absorb the material.

- (2) Cramming doesn't work for this amount of material
 - a. Begin the assigned reading immediately, and don't fall behind. The lecture will move very quickly and the information will build upon previous lectures.
 - b. Read the entire laboratory exercise BEFORE lab. This is essential in order to maximize the valuable lab time available to you.
 - c. Begin making "cheat sheets" as early as possible.

- (3) Review Frequently
 - a. Can you explain the concepts and provide examples (in class) and how to find the anatomical structure (for lab)? Does your explanation make sense? Can you invert the question and still provide a good explanation?
 - b. Ask Questions. You will have time at the beginning of each class session for clarification of anything that you don't firmly understand. Take advantage of this.

- (4) Interact with the other students in the course. Look at each other's dissections in the laboratory. If you do a particularly fine dissection of some structure, show it to others and explain it to them (this is good practice and a good way to memorize). Conversely, if you do a "hack-job" on your specimen, go look at someone else's to see what the structures should look like.

- (5) Take advantage of your instructors. We all love this subject. If you become confused (or only suspect that you may be), see your laboratory instructor or the lecturer immediately.