

BIOL 3410L

Comparative Vertebrate Anatomy Lab

Instructor of Record: Charles M. Watson, Ph.D.

Laboratory Teaching Assistant: Angela Roth (aroth1@tamusa.edu)

Description of Course Content (From the Course Catalogue):

This laboratory is designed to increase your hands-on knowledge of the anatomy of vertebrates. You must be able to identify structure, function, homology, analogy, homoplasy, origin, classification, and affinities. It is not intended to exactly complement the lecture, although most of the information overlaps. There is a high volume of information that you must learn in the laboratory in a relatively short period of time. You must be able to work efficiently and absorb a relatively large amount of information quickly. Lab time is limited, so you must read and prepare ahead of time.

Required Textbooks and Other Course Materials:

Laboratory handouts will be provided on Blackboard Ultra. You will need to keep a notebook.

You will need a lab coat and protective eyewear for dissections. Dissection kits and gloves will be provided.

Blackboard:

This class uses the learning management system Blackboard to administer content and evaluate understanding. I will post links to videos, notes, reading materials (other than your textbook), digital supplements, and may administer essay exams from this learning platform.

Grading Policy:

Your laboratory grade will consist of three practicals (25% each), seven daily quizzes (3% each), and a notebook check (4%). Practicals will consist of stations that include questions and associated specimens. A quiz will be given at the beginning of each lab period. One quiz will be dropped. A laboratory notebook must be maintained, complete with sketches and lab notes. It will be checked in one of the final labs and one grade will be assigned.

Lab Schedule

Week 1 (1/19 - 1/23): No class
Week 2 (1/26 - 1/30): Introduction, Protochordates, Lamprey
Week 3 (2/2 - 2/6): Cranioskeleton
Week 4 (2/9 - 2/13): Axillary Skeleton
Week 5 (2/16 - 2/20): Practical
Week 6 (2/23 - 2/27): Musculo-Skeletal System - Shark
Week 7 (3/2 - 3/6): Musculo-Skeletal System - Cat
Week 8 (3/9 - 3/13): **Spring Break (No LABS)**
Week 9 (3/16 - 3/20): Musculo-Skeletal System - Cat
Week 10 (3/23 - 3/27): Practical
Week 11 (3/30 - 4/3): Organ Systems: Dermal and Digestive
Week 12 (4/6 - 4/10): Organ Systems: Cardio-pulmonary and Lymphatic
Week 13 (4/13 - 4/17): Organ Systems: Renal and Reproductive
Week 14 (4/20 - 4/24): Practical

Dissection:

You will typically work in fours. However, you are encouraged to look at and discuss other table's specimens so that you can appreciate variation within species and preparations. Be careful with sharps such as scalpels and limit contact of solvents to bare skin.

Lab Rules:

1. No open-toed shoes.
2. No horseplay or disrespect of other students
3. Maintain a clean and organized lab space.
4. Do not remove anything from lab that you did not come in with.
5. Everyone must participate in dissections.
6. Handle specimens with care and respect, especially delicate skull preparations and slides.
7. Do not allow specimens to dry out.
8. Enjoy a challenging lab.