

Comparative Vertebrate Anatomy BIOL 4300
Fall Semester 2021
CRN 85013 (section A)
Instructor - Dr. J. Mitchell Lockhart
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Laboratory - Monday, 11:00 AM - 1:50 PM, BCB 2071

Textbook - Kent and Carr, Comparative Anatomy of the Vertebrates, Ninth Edition (Suggested)
Laboratory Textbook - Fishbeck and Sebastiani, Comparative Anatomy Manual of Vertebrate
Dissection (Third Edition) (Required)
Dissection Kit (Required)
Specimens (PROVIDED)

Course Objectives - As stated in your handbook, this course involves an anatomical and phylogenetic survey of representative vertebrate animals. We will cover objectives in more depth during the first few lectures.

Attendance

questions concerning grading should be brought to the attention of the instructor ~~NO~~
LATER than one week following return of the exam. NO makeup exams will be given

For the laboratory grade, 3 lab practicals (tentative) will be given. ~~Lab~~
practicals cannot be made up. If a lab practical is missed, you will receive a zero for
that lab grade.

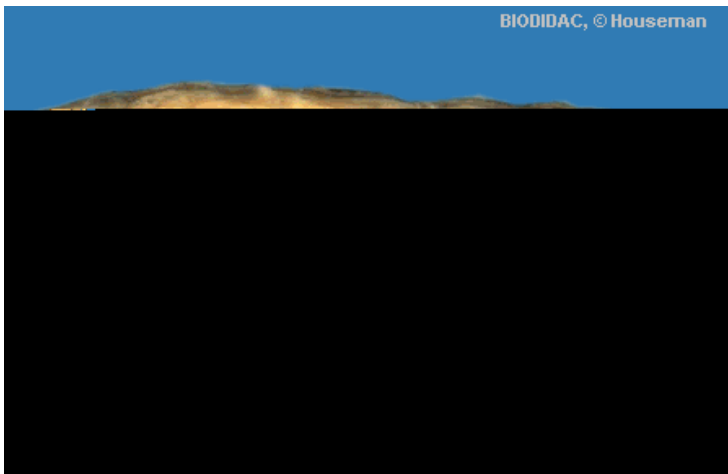
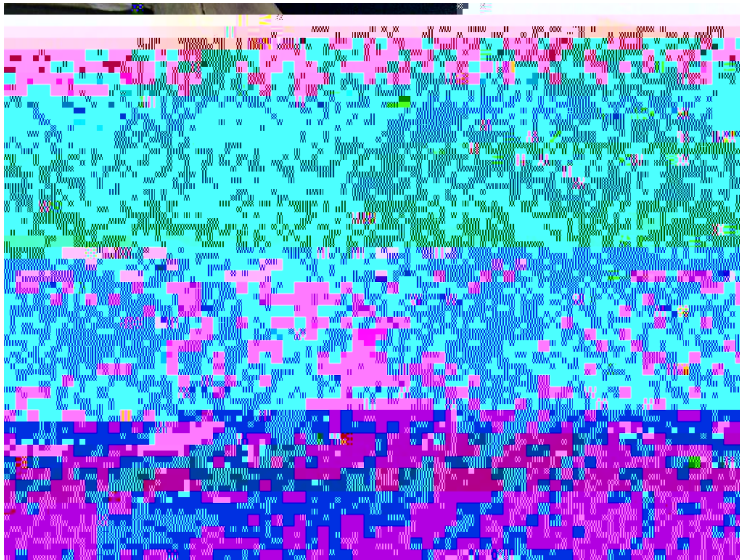
Complete information about the SOIs including how to access the survey, is available on the [SOI](#)

DISSECTION ASSIGNMENT

You will work in groups of TWO with the partner you have in lab, to prepare a powerpoint chronology of the dissections you are performing. This will stimulate you to do excellent, meticulous dissections in the laboratory. I want each group to take digital photographs of their dissections, import them into powerpoint, and label all parts that you are required to learn in the laboratory. Label anatomical parts clearly within powerpoint with either NUMBERS or LETTERS. Then on the following ~~powerpoint~~ slide, provide a key for the previous photograph.

You are not required to do this for the lamprey (it will be a bonus point opportunity) but I do want photographs of the mudpuppy, shark, and cat. Your laboratory guide gives you an EXCELLENT reference and should you come anywhere close to the quality found in the lab guide, you will do well on the project.

This project will be due Monday, December 6 at NOON. You will turn in a CD or jump drive copy of your project that I CAN OPEN on my computer.



Course Outcomes:

Course:

By the end of BIOL 4300, students who successfully complete the course should have:

1. Gained factual knowledge, to include anatomy and physiological terminology, ~~and~~ ~~method~~ principles, about Comparative Vertebrate Anatomy. (DO3,5; VSUGE05)
2. Learned fundamental principles, generalizations, or theories of Comparative Vertebrate Anatomy. (DO

such as word processors, spreadsheets, database management systems, or statistical packages. They will be able to find information using computer searching tools.

4.

BIOL 4300t Comparative Vertebrate Anatomy
Fall Semester, 2019
Dr. J. Mitchell Lockhart

Tentative Lecture Outline This is the order in which we will cover topics.

TOPIC

Nature of Vertebrate Morphology/Introduction
Origin and Classification of Vertebrates/Early Chordates
Fishes
Tetrapods
Development/Embryology
Integument and Derivatives
Head Skeleton
Teeth
Axial Skeleton
Appendicular Skeleton
Muscular System
Digestive System
Respiratory System
Circulatory System
Nervous System
Reproductive System
Excretory System

Lecture Exams:

1 t September 20

2 t October 27

3 t December 3

Final Exam t Friday December 10
8:00-10:00AM

Tentative Lab Schedule - This is the order in which we will cover topics.

Week of	TOPIC
1 August 17	Introduction
2 August 24	Lesser Chordates and Vertebrates
3 August 31	Lesser Chordates and Vertebrates
4 September 7	Integumentary System and External Anator Begin Skeleton
5 September 14	Skeleton
6 September 21	Skeleton
7 September 28	LAB EXAM I
8 October 5	Muscular System
9 October 12	N
10 October 19	