

COMPARATIVE VERTEBRATE ANATOMY
ABIO 315 (4 CREDIT HOURS)
FALL, 2006

Instructor: Dr. Hugh Hanlin
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Lecture: MWF 12:00-12:50 PM, SBDG 104

Lab: T 10:50 AM -1:30 PM, SBDG 104

Textbook: Comparative Anatomy of the Vertebrates, 9th ed., Kent & Carr

Lab Manual: Atlas and Dissection Guide for Comparative Anatomy, Wischnitzer

Laboratory Supplies: Eye protection and gloves are required. A lab coat or apron to protect your clothes, gloves, hand lotion, soap, etc. are also recommended. (Caution: Exposure to formaldehyde has been linked to cancer in rats. The use of surgical gloves in ABIO 315 is recommended. Any students with special health considerations or conditions should inform their instructor and seek special instructions regarding exposure in labs.)

Course Description: Phylogenetic and comparative aspects of anatomy and embryology.

Course Objectives:

- 1) To acquaint students with the anatomical organization of representatives of the vertebrate classes.
- 2) To trace the phylogeny of the vertebrates.
- 3) To trace the embryologic development of vertebrate systems.
- 4) To determine homologies in vertebrate anatomy based upon knowledge of phylogeny and embryology.

Student Competency Statements: By the end of this course the students will have demonstrated the ability to identify and/or describe:

- 1) Vertebrate phylogeny
- 2) Embryologic development of vertebrate systems
- 3) Anatomical orientation
- 4) Vertebrate anatomical homologies
- 5) Vertebrate organ structure and function
- 6) Vertebrate system organization and function

Methods of Presentation: This course will consist of lectures by the professor, classroom discussion, and laboratory exercises and will utilize appropriate modes of visual aids and laboratory equipment.

Methods of Evaluation: Achievements of course objectives will be evaluated by lecture exams, lab exams, and a comprehensive final exam.

Evaluation:

Three lecture quizzes 30%
Four laboratory quizzes (practical) 40%
*Final Examination (comprehensive) 30%

*In addition to the regular assignments, each student will be expected to view segments of the PBS series "Life on Earth" which is available on video tape from the professor or from local video stores. A 30-point final exam question will address topics covered in that series.

Additional Guidelines:

- 1) You will be expected to have read the assigned chapters prior to lecture.

2) You will be expected to have read all laboratory exercises and the accompanying text references before attending labs. You must bring both your laboratory manual and your text to the laboratory.

3) You will be expected to endorse the following HONOR PLEDGE on every quiz:

"On my honor as a University of South Carolina at Aiken student, I have neither given nor received any unauthorized aid on the assignment/examination. To the best of my knowledge, I am not in violation of academic honesty."

4) No makeup exams will be given for laboratory quizzes. No makeup exams will be given for lecture quizzes except under some extreme situations (see Student Handbook).

5) Students must attend at least 75% of the lectures and labs to receive a passing grade in the class.

6) You are encouraged to make appointments with your instructor if you are having problems in the course. In general, the following hours are available for appointments:
MW 9:30-11:00 AM, T 1:00-4:00 PM

7) If you have a physical, psychological, and/or learning disability which might affect your performance in this class, please contact the Office of Disability Services, 126A B&E, (803) 641-3609, as soon as possible. The Disabilities Services Office will determine appropriate accommodations based on medical documentation.

LECTURE SCHEDULE

<u>Week of:</u>	<u>Topic</u>	<u>Text Chapter(s)</u>
Aug 25, 28	Embryology; Vertebrate Characteristics	1, 5
Sep 4	Labor Day - No class	
Sep 6, 11	Vertebrate Phylogeny	2, 3, 4, Appendix
Sep 18	Integumentary System	6
Sep 21	LECTURE QUIZ #1 (During lab period)	
Sep 25, Oct 2	Skeletal System	7, 8, 9, 10
Oct 9	Muscular System	11
Oct 16	Digestive System	12
Oct 17	LECTURE QUIZ #2 (During lab period)	
Oct 18	Last Day To Withdraw Without "WF"	
Oct 20	Fall Break -- No Class	
Oct 23	Respiratory System	13
Oct 3, Nov 06	Urogenital System	15
Nov 13, 20	Circulatory System	14
Nov 14	LECTURE QUIZ #3 (During lab period)	
Nov 22-24	Thanksgiving Holiday - No classes	
Nov 27, Dec 4	Nervous & Endocrine Systems	16, 17, 18
Dec 15	FINAL EXAM (11:00 AM)	

LABORATORY SCHEDULE

<u>Date</u>	<u>Topic</u>	<u>Date of Practical Exam (During Lecture Period)</u>
Aug 29	Embryology	
Sep 5, 12	Skeletal System	Sep 22
Sep 26, Oct 3, 10	Muscular System	Oct 20
Oct 24, 31	Digestive, Respiratory & Urogenital Systems	Nov 6
Nov 7, 21	Circulatory System	
Nov 28	Nervous System	Dec 1