

**COMPARATIVE VERTEBRATE ANATOMY**  
**ABIO 315 (4 CREDIT HOURS)**  
**FALL, 2008**

Instructor: Dr. Hugh Hanlin  
Office: 101-A SBDG  
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Lecture: MWF 11:00-11:50 AM, SBDG 216

Lab: M 2:30 - 5:10 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 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 strongly encouraged to make appointments with your instructor if you are having problems in the course. You may make an appointment or drop in if I am not busy with another student. Office hours will be posted on my door. If my office hours conflict with your schedule, we can make arrangements to meet at another time during the week.
- 7) If you have a physical, psychological, and/or learning disability that might affect your performance in this class, please contact the Office of Disability Services, B&E 126, (803) 641-3609, as soon as possible. The Office of Disabilities Services will determine appropriate accommodations based on medical documentation.

### LECTURE SCHEDULE

<u>Week Of:</u>	<u>Topic</u>	<u>Text Chapter(s)</u>
Aug 22, 25	Embryology; Vertebrate Characteristics	1, 5
<b>Sep 1</b>	<b>Labor Day - No class</b>	
Sep 3, 8	Vertebrate Phylogeny	2, 3, 4, Appendix
Sep 15	Integumentary System	6
Sep 22, 29	Skeletal System	7, 8, 9, 10
	<b>Sep 22 - LECTURE QUIZ #1 (During lab period)</b>	
Oct 6	Muscular System	11
<b>Oct 10</b>	<b>Fall Break -- No Class</b>	
Oct 13	Digestive System	12
	<b>Oct 13 - LECTURE QUIZ #2 (During lab period)</b>	
<b>Oct 16</b>	<b>Last Day To Withdraw Without "WF"</b>	
Oct 20	Respiratory System	13
Oct 27, Nov 03	Urogenital System	15
Nov 10, 17	Circulatory System	14
<b>Nov 10</b>	<b>LECTURE QUIZ #3 (During lab period)</b>	
	<b>Nov 10 - LECTURE QUIZ #3 (During lab period)</b>	
Nov 24	Nervous System	16
<b>Nov 26-28</b>	<b>Thanksgiving Holiday - No classes</b>	
Dec 1	Nervous & Endocrine Systems	16, 17, 18
<b>Dec 10</b>	<b>FINAL EXAM (11:00 AM)</b>	

### LABORATORY SCHEDULE

<u>Week Of:</u>	<u>Topic</u>	<u>Date of Practical Exam (During Lecture Period)</u>
Aug 25	Embryology	
<b>Sep 1</b>	<b>Labor Day - No lab</b>	
Sep 8, 15, 22	Skeletal System . . . . .	<b>Sep 26</b>
Sep 29, Oct 6, 13	Muscular System . . . . .	<b>Oct 17</b>
Oct 20, 27	Digestive, Respiratory & Urogenital Systems . . . . .	<b>Oct 31</b>
Nov 3, 10, 17	Circulatory System	
Nov 24	Nervous System . . . . .	<b>Dec 5</b>

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