

ZOOLOGY 2204-010, SPRING 2002  
COMPARATIVE VERTEBRATE ANATOMY

Instructor: Dr. Richard Broughton

Office hours: MWF 10-11:20 AM, or by appointment. Regularly scheduled office hours will be held in Sutton Hall room 303.

Phone: at Biological Survey, 325-5357. During office hours in Sutton 303 only, 325-5959.

E-mail: rbroughton@ou.edu

Laboratory TA: Joel Johnson

Textbook: Vertebrates: Comparative Anatomy, Function, Evolution, 3rd Edition by K. Kardong.

Laboratory Manual: Comparative Vertebrate Anatomy: A Laboratory Dissection Guide by K. Kardong and E. Zalisko.

Supplementary course information such as tables and figures used in lecture will be posted on CourseNet. Therefore you must have access to the internet. I may also use the OU e-mail system to contact all students for special announcements so you should check your e-mail regularly. Note, if you normally use some other e-mail provider check into having your OU e-mail forwarded to that account.

Dissection Kit (required for each laboratory team): Advanced by Hamilton Bell or other. To include: No. 4 scalpel handle, scalpel blades, blunt-sharp scissors, fine point scissors, blunt forceps, fine point curved forceps, blunt probe, and needle-point probe. This should be available at the OU Bookstore or other bookstores. Rubber gloves for use during dissections are available at the OU Bookstore.

Lecture exams: there will be three in-class lecture exams plus a comprehensive final exam. Students will be responsible for all material presented in lecture plus assigned readings. Lecture exams will be typically composed of two types of questions: 1) short-answer or fill-in-the-blank and 2) essay or labeled diagram.

Laboratory exams: there will be three laboratory practical exams. These will be administered on Tuesday evenings as listed in the lab schedule - note that these are **not during the regular class period**. All students must take the lab exams at this time. If you have a class conflict with the Tuesday evening format see the lab instructor immediately. If you work Tuesday evenings make arrangements now to have these nights off. Given the time-dependent nature of these exams it is imperative that you arrive on time - **you will not be allowed to take the exam if you are late**.

Make-up exams for lecture and lab will only be given under exceptional circumstances. Acceptable reasons for missing an exam are: confining illness or injury, death in the immediate family, and transportation failure. If you cannot take an exam for one of these reasons you must inform the instructor within 24 hours of the exam time or no make-up will be allowed. If you cannot reach the instructor call (or have some able-bodied person call) the Zoology Department Office and leave a message with the secretary. Written documentation from physician or funeral

home or valid evidence of car trouble will be required before a make-up exam is given. The format of make-up exams may not necessarily be the same as the regular exam.

Withdrawal: if you perform poorly on the first lecture and lab exams, you are strongly encouraged to see me immediately. The course will not get any easier and experience shows that students rarely recover from poor early performance. Please take this seriously; I would much prefer to have students drop rather than continue on and fail. However, realize that it is your responsibility to formally withdraw from the course (it does not happen automatically). Students who request a withdrawal will be granted a “W” (regardless of current grade) up to **5:00 PM March 1, 2002**. Note that this is after the official unrestricted withdrawal date of Feb. 22 but will allow you to consider your performance on both the first lecture exam and the first lab practical. Any requests for withdrawal after March 1 will be subject to the standard OU policy whereby a “W” or an “F” will be assigned depending on course performance to date (i.e., if you are failing at the time of withdrawal you will receive an “F”). The last day to withdraw without petitioning the Dean is April 1, 2002.

Grades will be based on 900 total points for the course as follows:

3 lecture exams, 100 points each	300	
final lecture exam, 150 points		150
3 lab practicals, 100 points each	300	
practical quiz	20	
lab quizzes	70	
lab dissections		50
participation	10	
total	900	

Final grades will be based on the percentage of total points earned for the course. For example, if you earn 750 points,  $750/900 = 83.3\%$  which would be a “B”.

Academic misconduct: The OU student code of conduct defines academic misconduct as “any act that improperly affects the evaluation of a student’s academic performance or achievement.” It is the responsibility of the student to submit only one’s own work. Cheating on exams, quizzes or other assignments, e.g., copying answers from others, providing answers to others, or communicating exam questions to those in later sections will not be tolerated. Any student involved in academic misconduct will, at minimum, receive a grade of zero for the pertinent exam or assignment. Depending on the seriousness of the offense, academic misconduct may also result in failure of the course or expulsion from the University.

ZOOLOGY 2204, SPRING 2002  
TENTATIVE LECTURE SCHEDULE

<u>Day-Date</u>	<u>Topic</u>	<u>Reading</u>
M Jan 14	Introduction, history	Chapter 1
W Jan 16	What is Science?	
F Jan 18	Evolution	
M Jan 21	No class - M. L. King Jr. Holiday	
W Jan 23	Paleontology	
F Jan 25	Phylogenetics	
M Jan 28	Phylogenetics	
W Jan 30	Origin of chordates, Vert. phylogeny	Pages 47-53, Chapter 3
F Feb 1	Vertebrate phylogeny	
M Feb 4	Size and shape	P. 127-136 thru "right size"
W Feb 6	Development	P. 159-179 up to bone growth
F Feb 8	Development	
M Feb 11	Integument	Chapter 6
W Feb 13	<b>EXAM I</b>	
F Feb 15	Skull	P. 179-184, 232-244, 258 fenstrae,
M Feb 18	Skull	P. 272-273 middle ear
W Feb 20	Axial skeleton	P. 286-296
F Feb 22	Appendicular skeleton	P. 317-338
M Feb 25	Muscles	Chapter 10
W Feb 27	Muscles	
F Mar 1	Limbs and locomotion	P. 338-356
M Mar 4	Evolution of flight	
W Mar 6	Vertebrate adaptations	
F Mar 8	Feeding	P. 277-279, Chapter 13
M Mar 11	<b>EXAM II</b>	
W Mar 13	Digestive system	
F Mar 15	Respiratory system	Chapter 11
M-F Mar 16-24	No class - Spring break	
M Mar 25	Respiratory system	
W Mar 27	Circulatory system	Chapter 12
F Mar 29	Circulatory system	

M Apr 1	Circulatory system	
W Apr 3	Endocrine system	Chapter 15
F Apr 5	Vertebrate adaptations	
M Apr 8	Vertebrate adaptations	
W Apr 10	Brain	Chapter 16
F Apr 12	<b>EXAM III</b>	
M Apr 15	Nervous system	
W Apr 17	Nervous system	
F Apr 19	Sensory organs	Chapter 17
M Apr 22	Sensory organs	
W Apr 24	Urinary system	Chapter 14
F Apr 26	Reproduction	
M Apr 29	Reproduction	
W May 1	Secondary sex characteristics	
F May 3	Vertebrate adaptations	
T May 7	<b>FINAL EXAM 1:30-3:30 PM</b>	

COMPARATIVE VERTEBRATE ANATOMY, SPRING 2002  
 Sections 011 and 012  
 LAB SCHEDULE

<u>Date</u>	<u>Topic</u>	<u>Lab Manual Material</u>
Jan 17	Introduction	Chapter 1
Jan 24	Protochordates, Agnathan (Lamprey), integument	Chapters 2, 3, 4
Jan 31	Axial skeleton	Chapter 5
Feb 7	<b>PRACTICAL QUIZ</b> , Appendicular skeleton	Chapter 5
Feb 14	Appendicular skeleton, skull	Chapter 5
Feb 21	Skull	Chapter 5
Feb 26	<b>PRACTICAL I</b>	
Feb 28	External anatomy and muscles Shark and <i>Necturus</i>	Chapter 6
Mar 7	Shark and <i>Necturus</i> muscles; external anatomy Cat	Chapter 6
Mar 14	Cat muscles	Chapter 6
Mar 21	No lab - Spring break	
Mar 28	Cat muscles	Chapter 6
Apr 2	<b>PRACTICAL II</b>	
Apr 4	Digestive, Urogenital	Chapters 7, 9
Apr 11	Circulatory and Respiratory	Chapters 8
Apr 18	Circulatory and Respiratory	Chapter 8
Apr 25	Nervous	Chapter 10
May 2	<b>PRACTICAL III</b>	