

BIOLOGY 351, Spring 2015

Comparative Chordate Anatomy

Lecture: This course covers a great deal of material and the best way to do well is to attend lecture and take good notes. The text book is an excellent resource and quite readable. It is generally an excellent supplement to what is covered in lecture. This is not the case, however, for our first topic, vertebrate evolution. I will go into that subject in more depth than the text does. Lecture Powerpoints for this topic are posted in Blackboard. Exams questions are short essay format. One week before each of the 3 exams I will post a list of about 10 essay questions from which the exam questions will be drawn. There are two exams during the semester plus a third exam during finals week. Each is worth 70 points, total of 210.

Laboratory: Be sure to look over the lab manual and course pack material before coming to class, so that procedures and terminology will be familiar to you. You must bring both of these to every lab. Dissecting equipment and gloves are provided for you.

Attendance at all lab sessions is expected; *unexcused absences will result in the loss of 8 points per lab missed* (in addition to any lost quiz points). If you must miss a lab due to illness or other legitimate reasons, you must make arrangements to make up the lab. There are 3 lab practicals as well as weekly quizzes. These are worth a total of 200 points.

There are several on-line study resources for lab. They are posted on our home page as: **1.** "Link to Lab Photos". This was an Honors Project of a former student and has images of lab dissections with labels for structures you are required to know.

2. In addition, images from the photo book supplement used in lab are also posted as "Lab Photos from Book".

3. We have developed an interactive computer lab manual for this course. This can be provided to you on a CD and will enable you to preview and review most of the lab exercises. It includes images of all of the dissections and most of the other material used in lab, but only works on Windows, not Mac. The CD **MUST BE RETURNED AT THE END OF THE SEMESTER.** You can also download the Interactive Lab Manual (again, for Windows only). Instructions are posted. In either case, those with Macs will need to find a Windows machine in order to run the program.

Please Note: Any student who feels s/he may need an accommodation based on the impact of a disability should contact me to discuss specific needs. Also, please contact the Disability Resource Office (294-6624), room 1200K Hixson-Lied, to coordinate reasonable accommodation for students with documented disabilities.

Grading: There are 410 points possible during the semester:

Lecture exams	210 points
Lab practicals	150 points
Lab quizzes	<u>50 points</u>
Total	410 points

We will not look kindly on requests for make-ups. If you know of an absence in advance, written exams and quizzes can be taken early. Lab practical make-ups are nearly impossible.

Grades will be assigned according to the following scale. Instructors' evaluation (based on attendance, preparation, attitude) will decide borderline cases.

GRADE	%
A	92-100
A-	88-91
B+	85-87
B	82-84
B-	78-81
C+	75-77
C	72-74
C-	68-71

D+	65-67
D	62-64
D-	58-61
F	0-57

LECTURE SCHEDULE, SPRING 2015

Lecture Text: Kardong. *Vertebrates: Comparative Anatomy, Function, Evolution*, Any available edition.

DATES	TOPIC	TEXT CHAPTER
Jan 13	Introduction	1
Jan 15-Feb 3	Chordate Evolutionary History	2, 3
Feb 5, 10	Embryology	5
Feb 12	Integument	6
Feb 17	EXAM I (Intro-embryology)	70 points
Feb 19	Integument	6
Feb 24, 26	Skull	7
Mar 3	Axial Skeleton	8
Mar 5, 10	Appendicular Skeleton, Locomotion	9
Mar 12	Nervous System	16
Mar 16-20	Spring break	
Mar 24	Nervous System	16
Mar 26, 31	Sensory	17
Apr 2	Digestive	13
Apr 7	EXAM II (Integument-sensory)	70 points
Apr 9	Digestive System	13
Apr 14, 16	Respiratory System	11
Apr 21, 23	Circulatory System (no class 4/22)	12
Apr 28, 30	Urogenital System	14
May 4, finals week	Exam III (Digestive-Urogenital)	70 points
Total of 3 exams for lecture		210 points

LAB SCHEDULE, SPRING 2015

Lab Texts: Homberger and Walker. *Vertebrate Dissection*, 9th edition
Course packet provided.

DATES	TOPIC	MANUAL CHAPTER
Jan 12, 13	Basal Chordates, Lamprey Larva	1, 2 (pg 22-24)
Jan 14, 15	Adult Lamprey /Vertebrate Diversity	2, 3 (pg 25-27)
Jan 19, 20	No labs	
Jan 21, 22	Cranial Skeleton I	4
Jan 26, 27	Cranial Skeleton II	4
Jan 28, 29	Axial Skeleton	5
Feb 2, 3	Appendicular Skeleton I	6
Feb 4, 5	Appendicular Skeleton II	6
Feb 9, 10	Review	
Feb 11,12	PRACTICAL I	50 points
Feb 16, 17	External Anatomy/Integument	3 (pg 27-37)
Feb 18, 19	Muscular System I	7
Feb 23, 24	Muscular System II	7
Feb 25, 26	Nervous System I	9
Mar 2, 3	Nervous System II	9
Mar 4, 5	Nervous System III	9
Mar 9, 10	Sense organs	8 (pg 194-205)
Mar 11, 12	Coelom, Digestive, Respiratory I	10
Mar 16-20	Spring break	
Mar 23, 24	Review	
Mar 25, 26	PRACTICAL II	50 points
Mar 30, 31	Coelom, Digestive, Respiratory II	10
Apr 1, 2	Coelom, Digestive, Respiratory III	10
Apr 6, 7	Coelom, Digestive, Respiratory IV	10
Apr 8, 9	Circulatory System I	11
Apr 13, 14	Circulatory System II	11
Apr 15, 16	Urogenital System I	12
Apr 20, 21	Urogenital System II	12
Apr 22, 23	Review	
Apr 27, 28	PRACTICAL III	50 points
Apr 29, 30	No labs	

There will be 50 points of quizzes + 150 lab practical points = 200 total lab points

Unexcused missed labs result in loss of points