

study aid. THUS, tempting though it may be, you cannot sleep in without jeopardizing your grade, either directly (by lowering your class participation grade) or indirectly (by leaving you behind in the dust). And yes, you do need to take notes.

Lecture attendance: I expect you to attend class and *arrive on time*. Students may miss class three times with no penalty (this includes illness, athletic activities, field trips, etc.). If you miss more than three classes, I will deduct class participation points for each day missed. If you anticipate missing more than three classes, contact me as soon as possible.

Policy on electronic devices: Cell phones must be on silent mode during lecture, and I ask that you refrain from texting during class. You may bring a laptop or tablet to class to take notes, but if the temptation to play games, chat with friends, etc., appears to be irresistible, I will ask you to put the device away, as engaging in ancillary activities is distracting to you and those around you and rude to the instructor.

Reading assignments: I expect you to come to class prepared to discuss the assigned material, so please read the relevant chapter from the textbook (listed on the lecture schedule) before each lecture to get a feel for the material I will be covering. After class, use the text to amplify your lecture notes in areas you don't understand. Please note *Appendix C: Greek and Latin combining forms*; this will help make sense of anatomical terminology.

Study questions: I will post study questions after every lecture. Because many of the essay questions on exams are taken from these study questions, *it is in your best interest to write out the answers to these questions* (but do not try to answer them all the night before the exam).

Lecture quizzes: At the beginning of class on most Fridays, there will be a short quiz (10 points) covering the lectures from the previous week. This is not done to make your life miserable, but to encourage you to keep up with the class by reviewing the lectures each week. Quiz days are marked on the lecture schedule. I will announce any changes to the quiz schedule---but when in doubt, assume we are having a quiz. Plan to arrive for class on time, as *missed quizzes cannot be made up*. You are allowed to miss 2 quizzes without penalty, but you must contact me to explain your absence. One quiz grade will be dropped when computing your final grade.

PRESENTATION AND PAPER: Readings of current original research papers in the field of functional or evolutionary vertebrate anatomy will supplement the lecture material. *Working in pairs*, you will select a topic and give an oral presentation of a journal paper on that topic to the class during the first 15 minutes of the assigned lecture day. The paper must be selected from recent issues (1990 to the present) of a peer-reviewed journal and must be on functional or evolutionary vertebrate anatomy. I must approve the paper and you must provide me with a pdf or copy (electronic is fine) at least one week prior to your presentation. You will be graded on your oral presentation and a single spaced, typed summary/critique (3 page limit) of your chosen article to be turned in at the class following the oral presentation (electronic submission is fine).

LABS: You are expected to read the assigned lab exercises BEFORE coming to lab (this includes both the assigned sections of the lab manual and the lab handouts, which will be distributed in class on the Friday before the lab and posted on Blackboard). Labs are designed to fill the 3-hour lab period, so please do not plan on leaving early. If you do not finish the required exercises, it is your responsibility to come in and finish the lab at another time. Please bring your lab manual, handouts, and lab notebook to every lab.

Lab attendance: Don't even consider missing a lab unless you are ill or have some other emergency. IT IS THE STUDENT'S RESPONSIBILITY to arrange to make up a missed lab before the next lab quiz or practical. Be aware that I may not be available to guide you as I would during the scheduled lab period. Make-up labs will be offered at the discretion of the instructor.

Lab notebook: Critical observation is absolutely essential to science. Therefore, I ask that you bring a loose-leaf binder to lab (I will provide unlined paper for drawings). This binder will hold all lab handouts, plus your notes, drawings, and any written work assigned for the labs. The goal of the notebook is to hone your powers of observation and provide you with a useful study tool. The lab handouts will tell you what information must be included in your lab notebook. Each exercise will be graded in lab; if you are running behind, you may have until the next lab period (one week) to complete all required exercises.

Lab quizzes: We will not have regular lab quizzes, but I may give a quiz if I think it would further your learning. All quizzes will be announced.

EXAMS: Please see the lecture and lab calendars below for the exam schedule. Make-up exams will be given at the discretion of the instructor. It is the student's responsibility to contact the instructor BEFORE the missed exam, provide an appropriate excuse, and make arrangements to take the exam at another time. LAB PRACTICALS CANNOT BE MADE UP. If your absence is not excused, you will receive a 0 for the missed exam.

Absolutely no activated electronic devices will be allowed during exams (this includes cell phones and ipods). If you are seen using one of these devices for any reason during an exam, you will receive a "0."

GRADING: Your scores for all assignments and exams will be posted on Blackboard, so you can see how you are doing at any time. See grading scale below. There will be no extra credit options beyond the occasional extra question on exams, so please focus your energy on what we are doing in class and lab.

3 lecture exams (80 points each)	240 points	
Final lecture exam	160 points	
Lecture quizzes/homework (10 points each)	100 points	
<u>Presentation and research paper</u>	<u>50 points</u>	<u>LECTURE: 550 points</u>
2 lab practicals (75 points each)	150 points	
Final lab practical (100 points)	100 points	
Laboratory notebook	120 points	
<u>Quality and thoroughness of dissections</u>	<u>40 points</u>	<u>LAB: 400 points</u>
Class participation*	<u>50 points</u>	
Final grade	1010 points	

*Class participation includes attendance, preparation for class and lab, participation in discussions, and completion of all assignments. *Please note that the instructor may exercise qualitative judgment in determining your final grade.*

Grading scale:

A	93-100	B-	79-82	D+	64-66
A-	89-92	C+	75-78	D	61-63
B+	86-88	C	71-74	D-	58-60
B	83-85	C-	67-70	F	0-57

Academic support: The Academic Support Center houses Disability Support and Greyhound Tutoring on the first floor of Monocacy Hall and can be reached at [610-861-1401](tel:610-861-1401). Greyhound Tutoring provides course-specific tutors to Moravian students, free of charge. If you would like to work with a Greyhound Tutor to boost your academic success, please request a tutor through <http://bit.ly/NeedTutorMC> (case-sensitive). Plan ahead! It takes 2-3 business days to connect you with a tutor. Please email Dana Wilson (wilsond@moravian.edu), Tutor Coordinator, for more information about tutoring.

Disability support: Students who wish to request accommodations in this class for a disability should contact the Academic Support Center, located on the first floor of Monocacy Hall (extension 1401). Accommodations cannot be provided until authorization is received from the Academic Support Center.

Policy on honesty: Students are expected to abide by the college policy on intellectual honesty (see Student Handbook).

TIPS FOR DOING WELL IN THIS COURSE: If you find yourself falling behind, or you are struggling to learn the material, *please contact me right away*. I am here to help you!

Lecture exams:

1. ***Come to class ON TIME***
2. Do not fall behind---review and annotate your lecture notes, using the text to clarify things you do not understand. If the text cannot help you, please ask me. My opinion of you will not plummet if you ask a question, so don't be shy.
3. Review for each Friday quiz.
4. *Write out* the answers to the study questions posted after each lecture. *Think* about these questions as you answer them.
5. You are responsible for knowing the material I present *in lecture*---I encourage you to read relevant sections of the textbook, but *do not try to memorize the textbook*.

Lab quizzes and practicals:

1. Attend all labs.
2. Prepare for each lab by reading the lab handout and appropriate lab exercise *before* you walk into the lab.
3. Do not try to race through the lab exercises---be sure you understand what you are supposed to see, and be sure you actually see it before you leave. If you are confused, ask questions---I am there to help you!
4. If you finish a lab early, spend your extra time wisely---review the material, look at your neighbor's dissection, check your lab notebook, quiz your lab partner, etc.
5. Come to the "open lab" review sessions before the lab practicals, and prepare by making a list of the things you need to review. Listen to the other students---they may ask things you didn't think about.

Vocabulary:

1. The single greatest barrier to learning anatomy is the vocabulary. Do whatever you need to do to learn the terminology----flashcards, glossaries, diagrams, study groups, etc.

LECTURE SCHEDULE

Week		Lecture topic	Text reading
August 31	M	1. Protochordates	Chapter 2
	W	2. Chordate origins	Chapter 2
	quiz F	3. Vertebrate origins	Chapter 3
September 7	M	4. Ontogeny	Chapter 5
	W	5. Ontogeny	Chapter 5
	quiz F	6. Integument	Chapter 5-6
September 14	M	7. Integument	Chapter 6
	W	8. Integument	Ch. 6, Ch. 1, p.20-29
	quiz F	9. Systematics	
September 21	M	LECTURE EXAM 1 (80 points)	
	W	10. Introduction to the skeleton	Chapter 5
	F	11. The skull	Chapter 7
September 28	M	12. Skull, cont'd	Chapter 7
	W	13. Teeth	Chapter 13, p.506-516
	quiz F	14. Axial skeleton	Chapter 8
October 5*	M	15. Appendicular skeleton	Chapter 9
	W	16. Appendicular skeleton, continued	Chapter 9
	quiz F	17. Vertebrate diversity: fishes	Chapter 3
October 12	M	FALL BREAK--- NO LECTURE OR LAB	
	W	18. Fish-tetrapod transition	Chapter 3
	quiz F	19. Vertebrate diversity: Lissamphibia	Chapter 3
October 19	M	LECTURE EXAM 2 (80 points)	
	W	20. Vertebrate diversity: Amniotes	Chapter 3
	quiz F	21. Vertebrate diversity: Archosaurs	Chapter 3
October 26	M	22. Vertebrate diversity: Synapsids	Chapter 3
	W	23. Introduction to muscle systems	Chapter 10
	quiz F	24. Muscle systems, continued	Chapter 10
November 2	M	25. Digestive systems	Chapter 13
	W	26. Digestive systems, continued	Chapter 13
	quiz F	27. Digestive & respiratory systems	Chapter 13, 11

November 9*	M	28. Respiratory systems	Chapter 11
	W	29. Circulatory systems	Chapter 12
quiz	F	30. Circulatory systems, continued	Chapter 12
November 16	M	LECTURE EXAM 3 (80 points)	
	W	31 Urogenital system	Chapter 14
quiz	F	32. Reproductive systems	Chapter 14
November 23	M	33. Introduction to the nervous system	Chapter 16
	W-F	<i>NO LECTURES---THANKSGIVING</i>	
November 30	M	34. Central nervous system	Chapter 16
	W	35. Peripheral nervous system	Chapter 16
quiz	F	36. Autonomic nervous system	Chapter 16
December 7*	M	37. Sensory organs	Chapter 17
	W	38. Sensory organs, cont'd	Chapter 17
	F	39. Sensory organs, cont'd.	Chapter 17

- lab practicals will be held during the weeks marked with an asterisk

WEDNESDAY, DECEMBER 16TH, 1:30 PM—FINAL LECTURE EXAM (160 points)

EXAM SCHEDULE

September 21: **Lecture exam 1** (80 points)

October 5: ***Lab practical 1*** (70 points)

October 19: **Lecture exam 2** (80 points)

November 9: ***Lab practical 2*** (70 points)

November 16: **Lecture exam 3** (80 points)

December 7: ***Final lab practical*** (100 points)

December 16: **Final lecture exam** (160 points)

Week manual	Laboratory topic	Exercise in lab
August 31	<i>NO LAB</i>	
September 7	Lab 1: Protochordates and lamprey	Exercise 1
September 14	Lab 2: Embryology	Handout
September 21*	Lab 3: The vertebrate integument	Exercise 4
September 28	Lab 4: Skull & teeth	Exercise 5
October 5	LAB PRACTICAL (70 points) Lab 5: Connective & muscle tissues	Exercise 5, 6
October 12	<i>NO LAB---FALL BREAK</i>	
October 19*	Lab 6: Axial & appendicular skeleton,	Exercise 5
October 26	Lab 7: Muscles of the cat (forequarters)	Exercise 6
November 2	Lab 8: Muscles of the cat (hindquarters)	Exercise 6
November 9	LAB PRACTICAL (70 points) Lab 9: Digestive systems	Exercise 7
November 16*	Lab 10: Circulatory systems & heart, Respiratory systems	Exercise 8
November 23	Lab 11: Urogenital systems	Exercise 9
November 30	Lab 12: Brain & cranial nerves Review for final lab practical	Exercise 10
December 7	FINAL LAB PRACTICAL (100 points)	

* lecture exams will be held during weeks marked with an asterisk

Please note: this syllabus acquaints you with the topics I hope to cover in the order I hope to cover them, but I may make changes as we progress through the semester.