Comparative Vertebrate Anatomy

Course Information

Title: Comparative Vertebrate Anatomy, CBIO 3000/3000L
Room: 404A Biosciences (Lecture)
Time: 11:15 a.m. - 12:05 p.m. MWF (Lecture)
Room: 326 Biosciences (Lab)
Time: as scheduled (Lab)

Contact Information: Lecture

Name: DeLoris Wenzel Hesse
Office: 712 Biosciences
Hours 12:30-1:30 p.m. Mon and Wed
Other times available by appointment
E-mail: eLC private mail (best)
dwenzel@uga.edu (not recommended)

Contact Information: Lab

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Office: 317 Biosciences
Phone: 706.542.3322
Hours: By appointment
E-mail: eLC private mail
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Course Overview

Description and Learning Objectives

Comparative Vertebrate Anatomy emphasizes the structural anatomy of the vertebrate body. The primary goal is to provide a solid foundation for those students pursuing careers in the health sciences, such as human and veterinary medicine. This basic knowledge requires your mastery of factual materials, laboratory techniques, and problem-solving skills. Upon successful completion of the course, students will demonstrate knowledge of craniate anatomy, with an understanding of how form determines function. In addition, we hope that you gain an appreciation for the continuity of craniate structure.

Students that achieve these goals will be able to:

1. Define, discuss and evaluate the characteristics and origins of craniates.
2. Demonstrate a mastery of anatomical terminology.
3. Recognize, identify and discuss the structure and function of the following major organ systems: integumentary, skeletal, muscular, cardiovascular, respiratory, urogenital, and nervous.
4. Discuss and evaluate how the developmental history, histology and cell biology of an anatomical structure relates to its function.

Course Requirements

Prerequisites

An introductory-level college biology is highly recommended. You must have strong college-level reading comprehension, time-management, organizational and study skills to succeed in this course.

Textbook and Materials

Required textbooks:
Vertebrates: Comparative Anatomy, Function, Evolution, Kenneth V. Kardong, McGraw Hill, 5e/2009, ISBN:978-0073040585
Comparative Vertebrate Anatomy: A Laboratory Dissection Guide, KV Kardong and E Zalisko, McGraw Hill, 4e/2006, ISBN: 978-0072970081

Dissection kit: A dissection kit is supplied to each pair of dissectors. These kits must be well-maintained and returned at the end of the semester.

Suggested textbook:
Mammalian Anatomy: The Cat, Sebastiani and Fishbeck, Morton Publishing Company, 2e/2005, ISBN:978-0895823649

Course Examinations

Quizzes: Lecture

There are three lecture quizzes and three mini-quizzes this semester. Each of the three lecture quizzes are worth 100 points; each mini-quiz is worth approximately 33 points. Together, the three mini-quizzes and three lecture quizzes will total 400 points. Both may consist of identification, multiple choice, fill-in-the-blank, true/false, short answer and essay questions. Lecture quizzes account for 40% of your overall grade.

You are not permitted to use any outside sources to complete an exam or mini-quiz.

If you have an emergency and a valid, documented excuse, you may reschedule a lecture exam. You must take this test before the next scheduled class meeting time.

Quizzes: Laboratory Practicals

There are four laboratory practicals this semester. Laboratory practicals test your ability to visually identify "pinned" structures. You will have 45 seconds to identify structures that are placed at 50 separate stations. Each laboratory practical is worth 100 points and consists exclusively of fill-in-the blank items. Laboratory practicals account for 40% of your overall grade.

Laboratory practicals are night exams. The dates of these practicals are on the calendar. Due to the nature of these tests, we cannot reschedule a missed laboratory practical. If you miss a practical, you have two options: a zero or an Incomplete (I).

You are not permitted to use any outside sources to complete a laboratory practical.

Team-Based Work: TBLs and Wikis

Team-based learning (TBL) assignments

You will choose a team at the beginning of the semester, and must work with this group to complete all TBLs. TBLs are completed during the normally scheduled class time and may be prescheduled or unannounced. **If you miss a TBL, you will not be allowed to make up that assignment.** Your team is permitted to use photocopied materials, written notes, and textbooks to complete these projects, but may not use any other resource, such as classmates in other groups or internet/computer resources. No device that requires electricity (including the use of batteries) may be used. Unfortunately, since computer use during these assignments cannot be monitored, this means that team members that use a computer to take notes will not be allowed to use those notes. Details regarding TBL assignments will be discussed in class.

Wiki page

Each team is responsible for creating and maintaining a wiki page. This page will cover one of the topics we discuss in class, and must be approved by the instructor during the first week of class. This assignment strives to facilitate your writing process as well as to help you learn from and collaborate with other team members.

The technical features of the software as well as further details regarding this project will be provided in class.

Grading of team-based work

Team-based work accounts for a total of 20% of your lecture score; it is also be the source of extra credit points. Half of that percentage (10% of your lecture score) is directly from your team's average on the TBLs. The other half (10% of your lecture score) is derived from your team's score on your wiki page. This score is based upon accuracy, as well as how frequently class members use your page. The average of your wiki score will be multiplied by a team contribution percentage. The team contribution percentage is calculated through a review of your work by the group. Students that neglect to turn in peer evaluations will receive a zero on all team-based work. See peer evaluation (below) for more details.

Course Policies

Student Responsibilities

You are responsible for your own learning and education. You are expected to read assigned material before attending class and to make a valuable contribution to the classroom discussion. Irresponsible, passive persons obstruct the learning environment and interfere with the goals of responsible students.

Instructor Responsibilities

I am responsible for explaining the course goals and helping each student develop and attain personal goals for the course. In addition, I am responsible for planning and carrying out course instruction; facilitating discussion; expediting availability of lecture notes and webcasts; and returning assessment materials and email inquires in a timely fashion. In short, I am here to help you learn.

Lecture and Laboratory Exams

You must print your answers legibly on all tests, both in lecture and lab. Graders will not make any heroic efforts to decipher your handwriting. Furthermore, we assume that turning in illegible work is your way to (1) purposefully obscure your answers and (2) show that you are unconcerned with receiving points for your response. We will grade accordingly.

Laboratory Policies

Your teaching assistants set laboratory policy with final approval by the laboratory coordinator and course instructor. Your laboratory instructors will discuss these policies, in detail, during your first lab meeting.

You are expected to attend the laboratory section for which you are scheduled. Under certain extraordinary circumstances, the laboratory coordinator may approve a change in laboratory assignment of provide permission to attend an alternate laboratory section.

All laboratory conflicts or questions should be directed to your teaching assistants. If your laboratory instructor cannot resolve your conflict, then please feel free to contact either your laboratory coordinator or course instructor.

Missed Deadlines

If you miss a deadline, you will receive a zero on that assignment. There are no extensions under any circumstances.

Missed Class and Exams

All students are expected to attend all scheduled classes. If you miss an in-class team-based project, you will not be able to make-up that score, regardless of your excuse. If you miss a lecture quiz, you will be able to make-up that quiz if you (1) contact me within 24 hours of the quiz date and (2) provide a valid excuse. You must take this make-up quiz before the next scheduled class period. If you miss a laboratory practical, you have a choice of either receiving a score of zero on than practical, or to take an incomplete in the course. Due to the set up involved, it is impossible to take a make-up exam for a missed practical, regardless of your excuse.

Academic Honesty

The Office of the Vice President for Academic Affairs provides all students registered at this University with a booklet titled "A Culture of Honesty at the University of Georgia". This booklet specifies the policies to which you must adhere. *All academic work must meet the standards contained in "A Culture of Honesty".* Students are responsible for informing themselves about those standards before performing any academic work. If you have any questions regarding this policy, please contact me.

The link to more detailed information about academic honesty can be found at:
http://www.uga.edu/honesty/ahpd/culture_honesty.htm

CBIO 3000/3000L Lecture and Laboratory Schedule Fall 2010

Date	Lecture Topic	Text Reading (Kardong; Internet Sources*)	Lab Topic
Aug 16	What is a Vertebrate?	**Chapter 1**; Optional Reading	No Labs
Aug 18	Phylogenic Relationships of Craniata & Vertebrata	**Chapter 2**; **Chapter 3;** Handout (see Calendar for all handouts)	
Aug 20	Team-based Quiz 1	Cladistics	
Aug 23-27	4 Tissues = 1 Vertebrate	HistoWeb; **Chapter 5**	Protochordates
Aug 30	Embryology: Early Development	**Chaper 5**; Body Form	Histology I
Sept 01	Integument	**Chapter 6**;The Integument and Its Derivatives	
Sept 03	**Mini-Quiz 1**		
Sept 06	Labor Day Holiday		Histology II
Sept 08, 10	Epidermis, Dermis and Derivatives	**Chapter 6**	
Sept 13	**Lab Practical I**		Girdles & Limbs
Sept13	Structural Elements	**Chapter 4**: 147-152; **Chapter 5**	
Sept 15	**Lecture Quiz I (Intro through Integument)**		
Sept 17	Properties and Histology of Bone	Histology of Bone	Girdles, Limbs & Crania
Sept 20	Bone Development & Growth		
Sept 22	Bone		
Sept 24	Articulations	Normal Joint Structure	
Sept 27, 29	Skeletal Muscle: Structure and Histology	**Chapter 10**; Molecular Motors	Crania
Oct 01	Types of Skeletal Muscle		
Oct 04	Digestive System	**Chapter 13**	Superficial and Deep Muscles of the Thorax
Oct 04	**Lab Practical II**		
Oct 06	GI Tract: Mouth		
Oct 08	**Mini-Quiz 2**		
Oct 11	Tubular Organs	Digestive Physiology of Different Species	Deep Muscles of the Thorax, Throat & Back; Brachia
Oct 13	Intestines		
Oct 15	Liver and Pancreas		
Oct 18	Respiration	**Chapter 4**: 152-153; **Chapter 11**	Abdomen & Review
Oct 20	Gills		
Oct 22	Lungs		
Oct 25	Kidney	**Chapter 14**	Urogenital
Oct 25	**Lab Practical III**		
Oct 27	**Lecture Quiz II (Bone through Respiration)**		
Oct 29	Fall Break		
Nov 01	Nephron		Cardiovascular
Nov 03	CVS: Vessels	**Chapter 12;** Blood Vessel Histology	
Nov 05	CVS: The Heart	**Chapter 12**; Circulatorium	
Nov 08	Aortic Arches		Nervous System
Nov 10	Aortic Arches		
Nov 12	Nervous System	**Chapter 16**; Nervous System Overview	
Nov 15	**Lab Practical IV**		No More Labs!
Nov 15	Spinal Cord		
Nov 17	Brainstem		
Nov 19	**Mini-Quiz 3**		
Nov 21-27	Holiday (Thanksgiving)		
Nov 29	Cerebellum		
Dec 01	Hypothalamus and pituitary	**Chapter 15**	
Dec 03, 06	Telencephalon		
Dec 07	What is a Vertebrate? TBL	**Chapter 1**	
Dec 15	**Final Quiz III, noon-3 pm**		

* If you are viewing this as a print-out, go to the eLC calendar to access the internet resources.

Grading

Your Grades

Lecture and lab contribute equally to your grade. You must pass both laboratory and lecture in order to pass the course. Passing is defined as a grade of 55% or better. Students that do not meet this criterion will receive a failing grade (F). You may calculate your grade using this formula:

[((lecture exam and mini-quiz average * 0.8) + (Your teamwork average * 0.2))/2] + [laboratory average/2]

Peer Evaluations

Each student is subject to a number of peer evaluations. Each member of your team will evaluate your performance based upon the following rubric:

			Peer Evaluation **Section Number _____** **Team Number _____** ← Write the names of the people on your team including your own name.
Contributing to the Team's Work			• Does more or higher-quality work than expected. • Makes important contributions that improve the team's work. • Helps to complete the work of teammates who are having difficulty.
			Demonstrates behaviors described in the row just above and just below.
			• Completes a fair share of the team's work with acceptable quality. • Keeps commitments and completes assignments on time. • Fills in for teammates when it is easy or important
			Demonstrates behaviors described in the row just above and just below.
			• Does not do a fair share of the team's work. Delivers sloppy or incomplete work. • Misses deadlines. Is late, unprepared, or absent for team meetings. • Does not assist teammates. Quits if the work becomes difficult.
Interacting with Teammates			• Asks for and shows an interest in teammates' ideas and contributions. • Improves communication among teammates. Provides encouragement or enthusiasm to the team. • Asks teammates for feedback and uses their suggestions to improve.
			Demonstrates behaviors described in the row just above and just below.
			• Listens to teammates and respects their contributions. • Communicates clearly. Shares information with teammates. Participates fully in team activities. • Respects and responds to feedback from teammates.
			Demonstrates behaviors described in the row just above and just below.
			• Interrupts, ignores, bosses, or makes fun of teammates. • Takes actions that affect teammates without their input. Does not share information. • Complains, makes excuses, or does not interact with teammates. Accepts no help or advice.
Keeping the Team on Track			• Watches conditions affecting the team and monitors the team's progress. • Makes sure that teammates are making appropriate progress. • Gives teammates specific, timely, and constructive feedback.
			Demonstrates behaviors described in the row just above and just below.
			• Notices changes that influence the team's success. • Knows what everyone on the team should be doing and notices problems. • Alerts teammates or suggests solutions when the team's success is threatened.
			Demonstrates behaviors described in the row just above and just below.
			• Is unaware of whether the team is meeting its goals. • Does not pay attention to teammates' progress. • Avoids discussing team problems, even when they are obvious.
Expecting Quality			• Motivates the team to do excellent work. • Cares that the team does outstanding work, even if there is no additional reward. • Believes that the team can do excellent work.
			Demonstrates behaviors described in the row just above and just below.
			• Encourages the team to do good work that meets all requirements. • Wants the team to perform well enough to earn all available rewards. • Believes that the team can fully meet its responsibilities.
			Demonstrates behaviors described in the row just above and just below.
			• Satisfied even if the team does not meet assigned standards. • Wants the team to avoid work, even if it hurts the team. • Doubts that the team can meet its requirements.
Having Relevant Knowledge, Skills, and Abilities			• Demonstrates the knowledge, skills, and abilities to do excellent work. • Acquires new knowledge or skills to improve the team's performance. • Able to perform the role of any team member if necessary.
			Demonstrates behaviors described in the row just above and just below.
			• Has sufficient knowledge, skills, and abilities to contribute to the team's work. • Acquires knowledge or skills needed to meet requirements. • Able to perform some of the tasks normally done by other team members.
			Demonstrates behaviors described in the row just above and just below.
			• Missing basic qualifications needed to be a member of the team. • Unable or unwilling to develop knowledge or skills to contribute to the team. • Unable to perform any of the duties of other team members.

https://engineering.purdue.edu/CATME/index_files/AreasAssessed.htm (click on levels of performance)

Grading

Final Letter Grade

Your grade in this course is determined by your performance on lecture exams, laboratory practicals, and team-based assignments. There is no curve.

Standard cutoffs are used to assign grades. The grade of an Incomplete is assigned only at the recommendation of the Office of Student Affairs. Any student convicted of academic dishonesty will receive a grade of "F".

98.0-100% = A+
93.0-97.99% = A
90.0-92.99% = A-

87.0-89.99% = B+
83.0-86.99% = B
80.0-82.99% = B-

77.0-79.99% = C+
73.0-76.99% = C
70.0-72.99% = C-

60.0-69.99% = D

<59.99% = F

Changes to Your Final Letter Grade

Final letter grades are changed based upon factual errors. No other criteria are acceptable. Please note that if there is a factual error in the score you see recorded on eLearning Commons, you have *one week* after that score is posted to have that error corrected.

The syllabus is a general plan for the course. Deviations from the syllabus may be necessary; these changes will be announced in class.