

## **Functional Vertebrate Anatomy (ZOO 3713C), Spring 2020**

### **Lectures:**

Room FAB 0105

**Monday, Wednesday, Friday, 12:50pm – 1:40pm (Period 6)**

### **Laboratories:**

Room CRR 0109

**Monday 1.55 - 6.00 pm (Periods 7-10) (Section: 20466)**

**Tuesday 1.55 - 6.00pm (Periods 7 - 10) (Section: 20468)**

**Tuesday 8.30am - 12.35pm (Periods 2-5) (Section: 20469)**

**Wednesday 1.55 - 6.00 pm (Periods 7-10) (Section: 20467)**

**Wednesday 8.30am - 12.35pm (Periods 2-5) (Section: 20495)**

### **Course Description and Objectives:**

A thorough understanding of Vertebrate anatomy is essential for appreciation of many fields of biology, including whole organism biology, molecular and cellular biology, paleontology, evolutionary development, biomechanics, sports therapy, medicine and veterinary medicine. This course presents a functional perspective of comparative vertebrate anatomy, taking advantage of both the diversity and conservation of morphological structure in the animal kingdom to increase appreciation for how form can dictate function of select organ systems and of the organism as a whole. Form is studied not only at the anatomical level but also at the cellular and molecular level as well as at the developmental level as these are the basic building blocks on which anatomy is molded. The organisms studied are the Chordates, which range from Tunicates to Mammals.

Three-weekly lectures and the once-weekly laboratories are intended to be mostly coordinated such that the laboratory work solidifies and expands upon what is discussed in the lectures and reinforces anatomical terminology, structure and form. The systems covered include all the major components of the vertebrate body and the understanding of these systems is achieved by lectures, dissection, examinations of prepared tissues, histological studies and practical work.

One of the major additions to this year's course is the introduction of novel methods in practical (labs) teaching of anatomy through the use of Micro-CT (Computed Tomography) scanned vertebrates, 3D segmentation, and 'SketchFab' hosted content (in collaboration with Dr. David Blackburn; Florida Museum of Natural History), with open access to all students of Functional Vertebrate Anatomy.

### **Course requirements:**

Consistent and punctual attendance to all parts of the course is expected and required and a component of the marks is specifically laid aside for this. There will be a total of three non-cumulative examinations on the lecture material spaced out during the course with the third examination during finals week and these examinations will be multiple choice. There are also several quizzes during the laboratory periods which all contribute towards the final grade as well as two lab exams. There is also a short essay required on a topic of contemporary interest in biology.

**Instructor:**

Dr. Gareth Fraser

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Email: [g.fraser@ufl.edu](mailto:g.fraser@ufl.edu)

Office Hours: Wednesdays, 2.00 - 3.00pm

**Teaching Assistants:**

Ellen Humbel ([ehubel@ufl.edu](mailto:ehubel@ufl.edu))

George Glen ([george.glen@ufl.edu](mailto:george.glen@ufl.edu))

Daniel Paluh ([dpaluh@ufl.edu](mailto:dpaluh@ufl.edu))

**Text Book (lectures) - Recommended:**

***Vertebrates: Comparative Anatomy, Function, Evolution***  
***7/8<sup>th</sup> Edition. Kardong, K.***  
***Publisher: McGraw Hill.***

**Required Text (labs) - Recommended:**

*Kardong, K.V. and Zalisko, E.J. Comparative Vertebrate Anatomy – A laboratory dissection guide 7<sup>th</sup> Edition. 2014.*

**Lectures, Handouts and Supplemental Readings:**

Lectures will be posted on the course Canvas site at least the day before class and it is expected that you will either print the appropriate handouts and bring them to class with you or follow them on Canvas and they will be available there for revision. Papers for the essay will be posted the previous week.

Handouts and readings for the lab will be posted on the course site. Laboratory handouts will be posted by Thursday of the preceding week. Several pre-lab quizzes will be conducted on the Canvas site.

## Examinations and Grading:

Final grades will be determined as a combination of exams, quizzes, attendance at both lecture and lab, and participation in the course. It is very difficult to learn when one is not engaged and actively interacting with one's peers and with the instructors.

Exams 1, 2 and 3 approx. 200 each	580
Short essay	100
Lab	280
Attendance (all parts of the course):	40
<b>Total</b>	<b>1000</b>

## Academic and Class Conduct

All students registered at the University of Florida have agreed to comply with the following statement:

*"I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."*

In addition, on all work submitted for credit the following pledge is either required or implied:

*"On my honor I have neither given nor received unauthorized aid in doing this assignment."*

Any acts of cheating, plagiarism, or other forms of academic dishonesty will result in, at minimum, a 0 grade for the assignment, test, or quiz. Sharing information about tests and quizzes with students in other sections who have not yet taken the exam or quiz, or posting on social media information about tests and quizzes that other sections have not yet taken, is a serious act of academic dishonesty. If you witness any instances of academic dishonesty in this class, please notify the instructor or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). For additional information on Academic Honesty, please refer to the University of Florida Academic Honesty Guidelines at: <https://catalog.ufl.edu/ugrad/current/advising/info/student-honor-code.aspx#honesty>.

Please be courteous and do not talk during lecture. This can be distracting to other students and the instructor. Students that are being disruptive may be asked to leave the lecture, resulting in the loss of participation points for the day.

Use of electronic devices in class to take notes or otherwise participate in classroom activities is approved. Approved electronic devices are laptop computers, cell phones, smart phones, tablets, iPod touch, and voice recording devices. Other uses of these devices or the use of unapproved devices will be considered disruptive. Unapproved electronic devices include video recorders, digital cameras and MP3 players. Students who use unapproved devices in class will be considered disruptive. Multiple disruptions will be considered grounds for the assignment of a failing grade.

### **Campus Helping Resources**

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance. • University Counseling & Wellness Center, 3190 Radio Road, 352-392- 1575, [www.counseling.ufl.edu/cwc/](http://www.counseling.ufl.edu/cwc/)

Counseling Services Groups and Workshops Outreach and Consultation Self-Help Library Training Programs

- U Matter We Care, [www.umatter.ufl.edu/](http://www.umatter.ufl.edu/)
- Career Resource Center, First Floor JWRU, 392-1601, [www.crc.ufl.edu/](http://www.crc.ufl.edu/)

### **Accommodation for students with disabilities**

Students who will require a classroom accommodation for a disability must contact the Dean of Students Office of Disability Resources, in Peabody 202 (phone: 352-392-1261). Please see the University of Florida Disability Resources website for more information at: <http://www.dso.ufl.edu/drc/>. Note that the student should provide documentation of a requirement for accommodation **by the second week of classes**. No accommodations are available to students who lack this documentation. It is the policy of the University of Florida that the student, not the instructor, is responsible for arranging accommodations when needed. Once notification is complete, the Dean of Students Office of Disability Resources will work with the instructor to accommodate the student.

### **Student Complaints:**

Each online distance learning program has a process for, and will make every attempt to resolve, student complaints within its academic and administrative departments at the program level. See <http://www.distance.ufl.edu/student-complaint-process> for more details.

### **Sexual Harassment:**

It is the policy of The University of Florida to provide an educational and working environment for its students, faculty, and staff that is free from sex discrimination and sexual harassment. In accordance with federal and state law, the University prohibits discrimination on the basis of sex, including sexual harassment. Sex discrimination and sexual harassment will not be tolerated, and individuals who engage in such conduct will be subject to disciplinary action. The University encourages students, faculty, staff, and visitors to promptly report sex discrimination and sexual harassment. If you believe you have been subjected to sex discrimination or sexual harassment please report the incident to me or any University official, administrator, or supervisor. The Office of Human Resource Services investigates all complaints. Incidents should be reported as soon as possible after the time of their occurrence ([larryellis@ufl.edu](mailto:larryellis@ufl.edu)).