

Primate Functional Morphology (ANG 6555)

Syllabus – Fall 2015

Lectures: Tuesday 1:55 - 4:55pm (7-9 period) – TUR B304

Instructor: Dr. Valerie Burke DeLeon
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Course Description: In this course we will study primate comparative anatomy with an emphasis on functional adaptations in the musculoskeletal system. We'll be using a modified flipped classroom approach, in which you will be expected to come to class already familiar with preliminary learning objectives. This knowledge will be the basis for lectures on functional morphology, study of comparative material, and discussion of journal articles on that topic.

Course Objectives:

- 1) You will become fluent in the use of ***anatomic terminology*** commonly used to describe primate functional adaptations.
- 2) You will become familiar with ***analytic methods*** used to assess primate anatomy associated with function.
- 3) You will be able to describe the ***types of behaviors*** observed in primates that are often inferred from morphology.
- 4) Given a morphological characteristic, you will be able to discuss the ***competing influences of functional adaptation and constraint***.

Course Materials:

Learning objectives will be provided for each class period and will include three parts:

- 1) Preparatory Learning Objectives: Resources that will help you meet the learning objectives in preparation for each class will be posted on Canvas (our course management system).
- 2) Lecture Learning Objectives: Lectures and discussions in class will be accompanied by slides that will be available to you on Canvas. Content will draw on the knowledge addressed in the preparation before class.
- 3) Readings for Discussion: Journal articles and book chapters for discussion will be assigned for reading each week and provided through library links or available for download through Canvas.

Grading: Grades are based on preliminary quizzes, midterm and final presentations, a written research proposal, and class participation.

Preliminary quizzes (30%): At the beginning of most classes, a short quiz will be administered to test your grasp of the preparatory learning objectives. Eleven preliminary quizzes will be administered, and you may drop the lowest quiz grade (10 quizzes contribute to your grade).

Research presentations (15% + 15%): You will each be responsible for researching a relevant topic in each half of the course and sharing your findings with the class in a 20-25min presentation, with additional time for questions. Presentations will be graded on clarity, content, and slide aesthetics. Details will be discussed in class.

Research proposal (30%): You will each submit a research proposal on a topic related to Primate Functional Morphology. Format and expectations will be discussed in class. Your proposal should include a review of the literature, a statement of *a priori* hypotheses, identification of a feasible test sample, description and justification for analytic methods, and a statement of significance and broader impacts. Additional pages should be used for persuasive figures, tables, and references cited. You may have overlap in the content of one or more research presentations with the research proposal. This assignment serves two purposes: 1) to apply concepts that we learn in this class, and 2) to practice the important art of writing grant proposals.

Class participation (10%): This subjective grade reflects the importance of participating in our discussions during class.

Communication: Email is the best way to reach Dr. DeLeon (vdeleon@ufl.edu). Please use "Primate Functional Morphology" in the subject line.

Attendance: Our learning environment depends heavily on discussion, and each student has a responsibility to attend and contribute to the class. Attendance is required. If you have to miss a class, please make arrangements in advance. Repeated, unexcused absences will each result in a grade deduction of five (5) percentage points.

Course Evaluations: This is the first presentation of this course in this format, and your opinions on what works and doesn't work are of great value. You are encouraged to share your opinions at any time with Dr. DeLeon in person or by email. In addition, students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

University Policy on Accommodating Students with Disabilities: Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

University Policy on Academic Misconduct: Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <http://www.dso.ufl.edu/students.php>.

Course Schedule:

Aug 25	Introduction no preliminary assignments
Sep 1	Limb proportions Quiz 1
Sep 8	Bauplan, functional optima, and phylogenetic constraint
Sep 15	Limb morphology Quiz 2
Sep 22	Shoulder Quiz 3
Sep 29	Pelvis Quiz 4
Oct 6	Vertebrae and tails Quiz 5
Oct 13	Body size and allometry
Oct 20	Presentations (Post-cranial function)
Oct 27	Cranium and phylogenetic patterns Quiz 6
Nov 3	Encephalization and behavior Quiz 7
Nov 10	Facial skeleton and feeding Quiz 8
Nov 17	Tooth morphology and feeding Quiz 9
Nov 24	Visual and vestibulocochlear systems Quiz 10
Dec 1	Vocal tract and nasal cavity Quiz 11
Dec 8	Presentations (Craniodental function)

Disclaimer: This syllabus and schedule represent an initial plan for the course. As we go through the semester, this plan may need to change to enhance the class learning opportunity. All changes will be announced in class and on Canvas, and will be made available as promptly as possible.