ANTH 6491 'Primate Evolution'

Course and contact information:
Course: ANTH 6491 'Primate Evolution'
Semester: Spring 2017
Meeting time: Tuesdays, time: 1.00pm-3.30pm
SEH 6990 ('Science and Engineering Hall, 'Green Meeting Room')

Instructor:
Name: Sergio Almécija
Office: SEH 6675 (Science and Engineering Hall, 800 22nd St NW)
Phone: 202-994-0330
E-mail: almecija@gwu.edu
Office hours: by appointment

Course description
This graduate course will revisit key events during the evolutionary history of primates. Through this course, students will learn how to find, critically assess, and present current primary literature in several broad and specific aspects (e.g., morphology, behavior, genetics) related to the evolution of this clade (e.g., functional origins of primates, strepsirrhine-haplorhine divergence, tail loss in hominoids). Additionally, students will learn to design logical research studies to shed light onto some of the most interesting questions in primate evolution in the context of grant-style research proposals.

Online Access
This syllabus and other resources for the classes (e.g., readings) will be available on Blackboard at http://blackboard.gwu.edu

Course prerequisites:
One of the following (or equivalent):
ANTH 1001 Biological Anthropology
ANTH 3412 Hominin Evolution
Or any course generally related to organismic evolution. Otherwise contact your instructor to fill you in with some basic background.

Learning outcomes:
By the end of this course the students will be able to:
- Perform a literature search to identify articles on a specific subject.
- Differentiate between primary research articles and review articles.
- Make a persuasive argument for the scientific merit of a research study.
- Critically interpret data and arguments presented in research articles.
- Propose a research design to answer a specific question.
- Formulate a research question and develop a testable hypothesis.
- Demonstrate proficiency in scientific writing.
- Prepare scientific presentations.
- Participate in the process of peer review in publication and grant writing.

Structure of the class
Each class will consist of two blocks of 30-45 minute student presentation followed by 30-45 minute discussion of the research article/s pertinent to the specific topic discussed during that class.

Recommended textbook and other readings:
This course will heavily rely on the primary literature (specific articles will be available through Blackboard). However, students seeking to find a relatively up-to-day comprehensive source of information on primate evolution are encouraged to read this book:

'Primate Adaptation and Evolution', 3rd Edition (2013)
by John G. Fleagle
Academic Press; ISBN: 978-0-12-378632-6

Average minimum amount of out-of-class or independent learning expected per week:
A 3-credit course should include 2.5 hours of direct instruction and a minimum of 5 hours of independent learning or 7.5 hours per week. More information about GW's credit hour policy can be found at: provost.gwu.edu/policies- forms (webpage); or provost.gwu.edu/files/downloads/Resources/Assignment-Credit-Hours-7-2016.pdf (form)

Assignments and grading
- Attendance and participation (10%)
- Page critique/Comments on paper (15%)
- Presentation 1 (10%)
- Presentation 2 (10%)
- Presentation 3 (10%)
- Research proposal (30%)
- Peer reviews (15%)

Attendance and participation: Students are expected to attend all lectures and actively participate in class discussions (10% of final grade).

A page critique/comments on paper: Students will also have to write and submit (via email) before the beginning of each class a critique/review of each paper presented in the previous class (15% of final grade). This critique/review will sintetitze the main topic discussed in the previous class, and the alternative views/hypotheses (and data/results supporting each view, with full references). The document should indicate the name of the student, date and topic (Word file, Times New Roman 12 pts, single space).

Presentation 1: Each student will be required to present one article (or more if they are highly related) focused on a particular key event during primate evolution (i.e., using as a guide nodes and branches on the phylogenetic tree in Figure 1, see below). This article(s) must constitute a primary source with an original research design and results. The students will be required to introduce the class to the authors of the paper(s), the background leading into the research presented in the paper, how this research fits within the bigger picture (i.e., in the primate tree), walk the class through the individual figures and lead the discussion regarding the major findings outlined in the article (10% of final grade). Each student will discuss with the instructor the topic and paper(s) that will constitute their presentation to avoid topic overlap.

Presentations 2 and 3: Like 'Presentation 1' above, later in the semester, in different evolutionary event/primate tree nodes (each 10% of final grade).

Research proposal: It is assumed that students taking this class are not only generally interested in primate evolution, but also in pursuing a research-related career in the field. To develop the necessary skills to accomplish this task, each student will be required to write a research proposal designed to answer a specific and interesting question(s) with specific testable hypotheses related to primate evolution (30% of final grade). The specific topic of this research can be the same of one of the two class presentations. Make sure to arrange a meeting with your instructor (early in the course) to discuss the topic that will constitute the focus of your research proposal.

The 'first version' of the grant proposal must be submitted electronically to instructor (SA) **by 5pm on 3/9 at the latest**. The 'final proposal' (after applying the changes suggested by your peer-reviewers, see below) must be sent to SA **by 5pm on 4/27 at the latest**. These proposals should be submitted (via email) in a Word file document, in the following format:

NSF Doctoral Dissertation Research Improvement Grant, including all budget and other associated documents (see details here: https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505067). The instructor will provide an example of a successful proposal.

Peer reviews: Students will also be evaluated in their ability to evaluate other's research proposals and provide constructive criticism to help improve those proposals (15% of final grade). The 'first version' of each research proposal will be reviewed by three peers and the instructor (who will act as the 'Internal Panel' and 'Program Officer' and).

The correlation between percent scores and letter grades followed in the course is:
(the grades will not be curved)

A	92.5 – 100
A-	89.5 – 92.4
B+	86.5 – 89.4
B	82.5 – 86.4
B-	79.5 – 82.4
C+	76.5 – 79.4
C	72.5 – 76.4
C-	69.5 – 72.4
D+	66.5 – 69.4
D	62.5 – 66.4
D-	59.5 – 62.4
F	59.4 and below

Tentative schedule
*** Schedule is subject to change (e.g., pending final student enrollment)

Date	Lecture topics
Jan 17th	Syllabus, course content, introduction to 'Primate Evolution'
Jan 24th	Presentation examples: 'Origins of hominoids', 'The *Pan-Homo* LCA'
Jan 31st	Students presentations 1,2
Feb 7th	Students presentations 3,4
Feb 14th	Students presentations 5,6
Feb 21st	Students presentations 7,8
Feb 28th	Students presentations 9,10
Mar 7th	Students presentations 11,12
Mar 9th	**Research Proposal, submission 1**
Mar 14th	**Spring Break (no classes)**
Mar 21st	Students presentations 13,14
Mar 23rd	**Research Proposal 1: Reviews due**
Mar 28th	Students presentations 15,16
Apr 4th	Students presentations 17,18
Apr 11th	Students presentations 19,20
Apr 18th	**AAPAs (no class)**
Apr 25th	Students presentations 21,22
Apr 27th	**Research Proposal, submission 2 (final)**
May 8th-16th	**Final Examinations**

NOTE: In accordance with university policy, the final exam will be given during the final exam period and not the last week of the semester. For details and complete policy, see: provost.gwu.edu/administration-final-examinations-during-examination-period

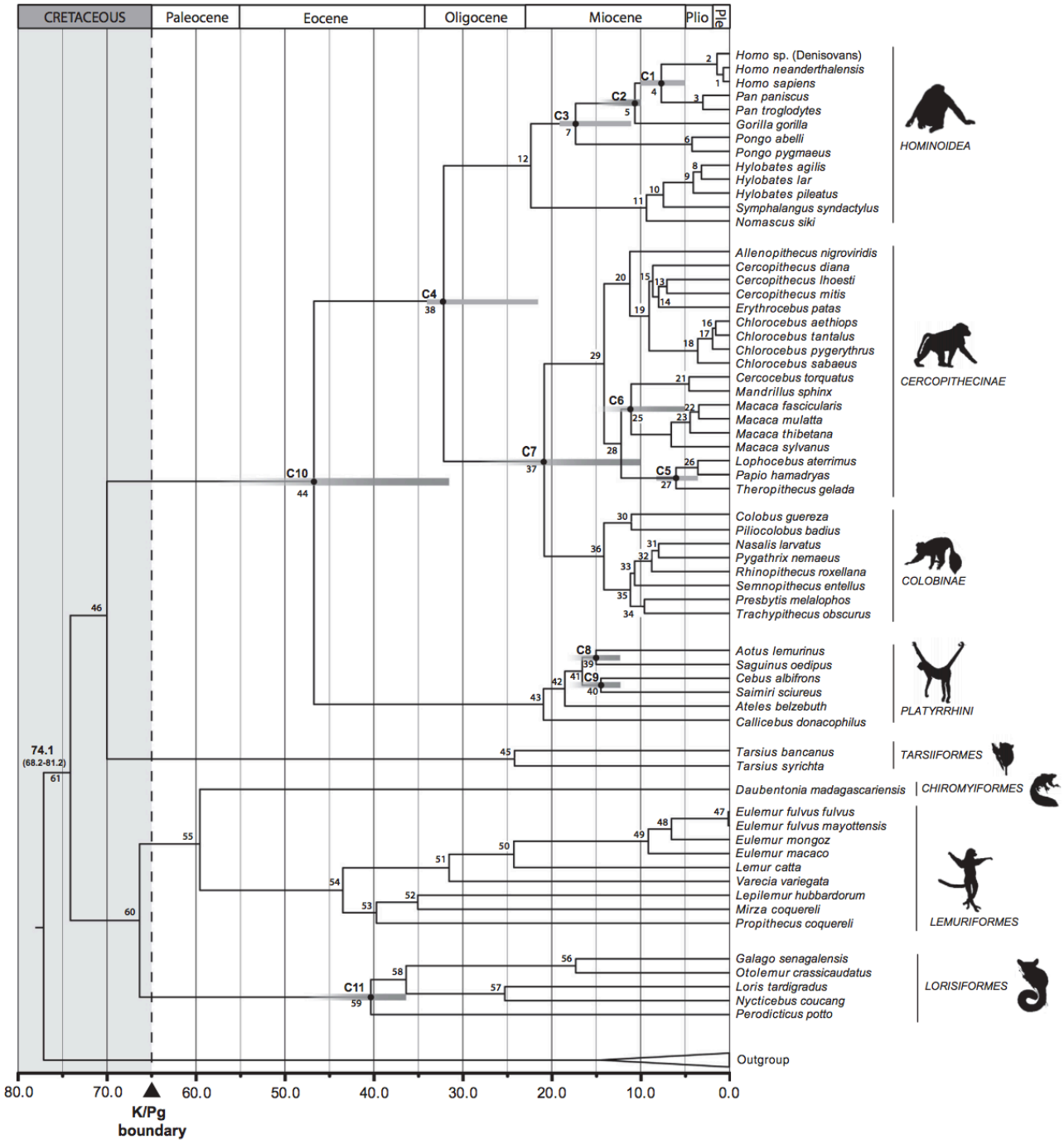

Figure 1. Example of a primate phylogeny. Single chronogram with divergence date estimates from complete mitochondrial genome sequences. Only age estimates within primates are shown. Calibration points are depicted with filled circles; gray bars indicate constraint ranges. **From Figure 2 in Pozzie et al., (2014, Mol Phyl Evol).**

GW's Academic Schedule – Spring Semester 2017

Classes Begin	Tuesday, January 17
Inauguration Day (no classes)	Friday, January 20
President's Day (no classes)	Monday, February 20
Spring Break	Monday, March 13 – Saturday, March 18
Last Day of Classes	Monday, May 1
Designated Friday	Tuesday, May 2
Designated Monday	Wednesday, May 3
Make-Up/Reading Days	Tuesday, March 4/Friday, May 5
Final Examinations	Monday, May 8 – Tuesday, May 16

University policies:

University policy on observance of religious holidays
In accordance with University policy, students should notify faculty during the first week of the semester of their intention to be absent from class on their day(s) of religious observance. For details and policy, see: students.gwu.edu/accommodations-religious-holidays.

Academic integrity code
Academic dishonesty is defined as cheating of any kind, including misrepresenting one's own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information. For details and complete code, see: studentconduct.gwu.edu/code-academic-integrity

Safety and security
In the case of an emergency, if at all possible, the class should shelter in place. If the building that the class is in is affected, follow the evacuation procedures for the building. After evacuation, seek shelter at a predetermined rendezvous location.

Support for students outside the classroom
Disability Support Services (DSS)
Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office at 202-994-8250 in the Rome Hall, Suite 102, to establish eligibility and to coordinate reasonable accommodations. For additional information see: disabilitysupport.gwu.edu/

Mental Health Services 202-994-5300
The University's Mental Health Services offers 24/7 assistance and referral to address students' personal, social, career, and study skills problems. Services for students include: crisis and emergency mental health consultations confidential assessment, counseling services (individual and small group), and referrals. For additional information see: counselingcenter.gwu.edu/