

PRIMATE EVOLUTION

ANT 388
PRIMATE EVOLUTION
Spring 2013
Tues 1-4. SAC 5.118

Instructor: Liza Shapiro
Office Hours: Wed 3-4 or by appointment (471-7533)

This seminar is an examination of adaptation and evolution in nonhuman primates. The fossil evidence for primate evolution will be examined after a basic grounding in the anatomy and systematics of extant primates. Each of the major radiations of fossil primates will be investigated with respect to adaptive diversity, functional morphology, and systematics.

Grades will be based on:

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| 1. Giving 2 class lectures | 20% |
| 2. Leading class discussion twice | 20% |
| 3. Participation in discussion | 20% |
| 3. Presentation of term paper or project | 20% |
| 4. Written term paper or project | 20% |

COURSE MECHANICS:

Lectures:

Twice during the semester, each student will be required to give a lecture (approximately 30-45 minutes) that is an OVERVIEW of a fossil group. This lecture will be given at the END of class, the week BEFORE we discuss the assigned readings for the fossil group. The purpose of these lectures is to give the class a basic knowledge of the fossil group's time span, geographic distribution, adaptive diversity, and distinguishing anatomical characteristics before moving on to more issue-related readings and discussion the following week. We will begin these lectures at the end of class on Feb. 5, with a lecture on adapiformes, in preparation for discussion of adapiformes on Feb 12.

Leading Discussion:

Twice during the semester, each student will be required to lead and moderate class discussion. This means that you will not just summarize the readings, but offer your critical evaluation of them. Try to foster debate among your classmates by presenting opposing views on the subject. You may lead discussion on the same topics for which you give lectures, but you are not required to. Student led discussions will begin Feb 5. Before that, we will discuss the readings as a group, and I will lead discussion.

Participation in class discussion:

All students are expected to have read all assigned materials and be prepared to discuss them. Don't rely on the class moderator to do your thinking for you. Think about the question set that comes with each reading assignment, and consider your opinion on controversial issues, before coming to class.

TERM PROJECT AND PRESENTATION

Each student is required to complete a class project on a topic of his or her choice, and present the results in written and oral form. You have three options for type of project and I will consult with each student on the choice.

Option 1: Conduct an original research project on a topic relevant to the course material and write the results in journal article style. The paper should be approximately 15 pages long, but no more than 20 (double spaced).

Option 2: Write a paper that is a thorough critique of the literature on a topic relevant to the course material. For this option, your paper should be longer than Option 1, but no more than 25 pages (double spaced).

Option 3: I developed a website for my undergraduate primate evolution course several years ago, which is in need of expanding and updating. See <http://www.laits.utexas.edu/shapiro/> (user name: Shapiro, password pr1mate, yes with a 1, not an i). This option would require you to add and/or update one or more sections on the website (how many sections would be decided in consultation with me), as well as create an interactive lab assignment for undergraduates.

BY **MARCH 5**, each student **MUST** submit a brief description or outline of his or her intended paper/project topic for approval.

All students will be required give a formal 10-15 minute presentation to the class on their project on the last day of class (**TUES APRIL 30**)

The written version of the project is due **MONDAY MAY 6 AT NOON**.

LABS

Throughout the semester, I will be setting up labs for you to go through on your own time. These will incorporate living primates as well as whatever fossil cast material we have available to us.

READINGS

ARTICLES:

Assigned readings will be primarily articles available online through the course website on Blackboard (<http://courses.utexas.edu>).

TEXTBOOKS: In addition, I recommend you purchase the following textbooks (Will be available at the University Coop)

Recommended: Fleagle, John (1999) Primate Adaptation and Evolution. Academic Press.

Recommended: Whitehead P, Sacco W, and Hochgraf S (2005) A Photographic Atlas for Physical Anthropology. Morton Publishing Company.

WEBSITE ON PRIMATE EVOLUTION:

Another useful source of information is the primate evolution website I developed for my undergraduate course: See (<http://www.laits.utexas.edu/shapiro/>)

ALSO, KEEP IN MIND:

Edited volumes on primate evolution you should be aware of:

Fleagle, J and Kay, R. (1994) Anthropoid Origins

Hartwig, W. (2002). The Primate Fossil Record.

Ross, C. and Kay, R. (2004). Anthropoid Origins, New Visions

Ravosa, M. and Dagosto M. (2007) Primate Origins: Adapations and Evolution

Henke and Tattersall (2007) Handbook of Paleoanthropology (covers human evolution as well)

Useful websites on cladistics

<http://www.fossilnews.com/1996/cladistics.html>

<http://www.ucmp.berkeley.edu/clad/clad4.html>

Schedule

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Jan 15	Organizational meeting
Jan 22	Primate anatomy and systematics
Jan 29 closely	Primate Origins I: Who were the earliest primates? To whom are primates most related?
Feb 5	Primate Origins II: Adaptive explanations for primate origins
Feb12	Adapiformes
Feb 19	Omomyiformes
Feb 26	Strepsirrhine evolution
Mar 5	Anthropoid origins I: Basal anthropoids and anthropoid ancestry
Mar 12	SPRING BREAK
Mar 19	Anthropoid origins II: Early catarrhines, evolution of anthropoid adaptations
Mar 26	Platyrrhine Evolution
Apr 2	Cercopithecoid Evolution
Apr 9	AAPA
Apr 16	Hominoid Evolution I
Apr 23	Hominoid Evolution II
Apr 30	Student presentations

Note on UT policies:

Religious holy days. By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

Absence for military service. In accordance with section 51.9111 of the Texas Education Code, a student is excused from attending classes or engaging in other required activities, including exams, if he or she is called to active military service of a reasonably brief duration. [The maximum time for which the student may be excused has been defined by the Texas Higher Education Coordinating Board as "no more than 25 percent of the total number of class meetings or the contact hour equivalent (not including the final examination period) for the specific course or courses in which the student is currently enrolled at the beginning of the period of active military service."] The student will be allowed a reasonable time after the absence to complete assignments and take exams.

Students with disabilities: At the beginning of the semester, students with disabilities who need special accommodations should notify the instructor by presenting a letter prepared by the Services for Students with Disabilities (SSD) office. To ensure the most appropriate accommodations can be provided, students should contact the SSD at 471-6259. See <http://www.utexas.edu/diversity/ddce/ssd/>

Scholastic Dishonesty

Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from The University. Scholastic dishonesty" includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor), or the attempt to commit such an act.

Emergency evacuation: (Office of Campus Safety and Security, 512-471-5767, <http://www.utexas.edu/safety/>)

- Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.
- Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.

- Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.
- In the event of an evacuation, follow the instruction of faculty or class instructors.
- Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.