ANT 351E (Unique # 30595) 
PRIMATE EVOLUTION 
FALL 2015 
TTH 11:00-12:30 SAC 5.172 

Course website on Canvas: http://canvas.utexas.edu/ 

Primate Evolution fossil database website: http://www.laits.utexas.edu/shapiro/ 
username: shapiro 
password: pr1mate (yes that’s a 1, not an i) 

Instructor: Liza Shapiro 
Office Hours: Tues 1-3 or by appointment 
SAC 5.128 
471-7533 
liza.shapiro@austin.utexas.edu 
If you can't come to my office during office hours, please feel free to make an appointment! You are also welcome to communicate with me by email. 

Prerequisites: ANT 301 
(You will be best prepared for this course if you have had ANT 301, ANT 432L, or ANT 348-Human Evolution). 

Course description: This course is an in depth examination of the fossil record for nonhuman primate evolution. After a basic grounding in the anatomy, ecology, and systematics (evolutionary relationships) of living primates, we will explore each of the major radiations of fossil primates with respect to adaptive diversity, functional morphology, and systematics. This course will help you understand how the evolutionary process has resulted in a wide diversity of living as well as extinct primates. Although we will not cover human evolution specifically, this course will give you the perspective you need to understand the place of humans in primate evolutionary history. 

Course objectives: After taking the course, you should understand: 

1) the systematics of living primates including the basic anatomical differences that distinguish them functionally and phylogenetically. 

2) current methodologies for reconstructing phylogenetic relationships among primates 

3) how the study of functional morphology in living primates can be applied to the reconstruction of behavior in fossil primates.
4) the adaptations and phylogenetic relationships among fossil primates, and the relationships of fossil primates to living primates.

**Textbooks/Readings/Websites:**

**Required Textbook:**


**Optional but highly recommended textbook:** (a useful reference for comparative primate skeletal anatomy; this atlas will facilitate your lab observations and assignments).


Both books are on reserve in the Life Sciences Library if you don’t want to purchase them.

**Other Required Readings:**

On CANVAS:

In addition to the textbook readings, there will be supplementary readings available in pdf format (or links to webpages) on the course website via Canvas ([http://canvas.utexas.edu/](http://canvas.utexas.edu/)).

**PRIMATE EVOLUTION WEBSITE** : [http://www.laits.utexas.edu/shapiro/](http://www.laits.utexas.edu/shapiro/). To log on, use username: shapiro, Password: pr1mate. This website has been developed by me, UT Anthro graduate students, and the College of Liberal Arts. You can use this website as a backup to other assigned course readings. You will also be given specific assigned readings from it.

NOTE: The Primate Evolution Website is a work in progress. I would appreciate feedback on any bugs you find. Reasonably significant feedback can earn you extra credit in the class.

**Course requirements:**

Lab assignments: You will complete one online lab and four in-class labs using fossil cast material.

**Online lab** (Primate Form and Function): Available on Canvas. Due Sept. 8.
In-class labs: There are four lab assignment sheets available for download from Canvas. Labs will be held during regular class hours (see syllabus). You are required to bring your lab assignment with you to class on lab days (along with your class notes and textbooks). You will hand in your lab answer sheet before you leave class.

Exams: There will be 3 exams; the third exam is given on the last class day and is not cumulative. Each exam will consist of a variety of types of questions, such as multiple choice, short answers, and essays.

Paper: Each student will be required to write a 5-8 page paper, double spaced, 12 pt. font, 1 inch margins. The focus of the paper will be to compare primary (journal articles) and secondary (science reports from the popular press) sources on the same topic within primate evolution. Further information on the term paper can be found on Canvas. No later than Oct 29, you are required to submit your paper topic to me – at a minimum, you should list your primary source and at least one of your secondary sources. This way, I can let you know if you’re on the right track before it’s too late. Please come for help in advance of October 29 if you’re having trouble!

In conjunction with the paper, you are required to read a tutorial on plagiarism and take a short test on it. The tutorial can be found at http://www.lib.utexas.edu/services/instruction/learningmodules/plagiarism/. The plagiarism test is available on Canvas. Your term paper will not be graded unless you complete the plagiarism test.

Manage your time wisely when preparing to write the paper. This may help (even though you're not “dummies”!): http://www.dummies.com/how-to/content/budgeting-your-time-to-complete-a-research-paper.html

Grading
Exam 1 20%
Exam 2 20%
Exam 3 20%
Paper 20% (including turning in your topic/sources by Oct 29).
Lab assignments: 20%

Final course letter grades will be assigned using the +/- grading system.

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Course policies:

The following policies are not intended to be harsh, but are included to provide clear guidelines on issues that students often face throughout the semester.

Expectations:
I expect you to do the assigned readings in advance of the lectures and to come to class each day on time. If we have an in-class lab that day, I expect you to come prepared with your assignment sheet in hand (from Canvas). We will not provide copies of the assignment sheet. If you forget to bring it, you will have to leave class and print it out on campus, which means you will lose precious lab time. *I do not take formal attendance, but I am aware of who consistently comes to class and who doesn’t.* Consistent attendance can help boost your grade if you end up with a borderline final grade. Whether you come to class or not, you are responsible for keeping up with what happens in class. This applies to the content of the class, handouts, and announcements about class policies, events, deadlines, etc. Lectures and announcements can be found on Canvas, but it is easy to miss other pertinent information if you are absent from class.

Make-ups
There will be no make-up exams or in-class labs. Exceptions will be made only 1) with *proof* of dire emergency or illness, 2) due to observance of a religious holy day, or 3) due to military service.

**Note:** The 3rd exam is scheduled for the last week of classes. If you have other exams scheduled that week, plan to budget your study time well. This happens often, so I cannot give special consideration to students in this situation. I will also not provide alternative exam times for students who have personal travel plans or commitments, so please don’t ask.

**Illness or emergency:** If you miss an exam or lab due to illness or emergency, contact me *as soon as possible* either before the exam or within 2 days after the exam or lab. You will not be given a make-up unless you can provide documentation regarding the reason for your absence.

**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:** Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities at 512-471-6259 (voice) or 512-410-6644 (video phone) or ssd@austin.utexas.edu or http://ddce.utexas.edu/disability/

**Late assignments**
Late term papers or labs will cost you 10 points (out of 100) per day. This could change your grade dramatically. Don't be late!

**Grades**
The grade you are given, either on an individual exam or assignment or as your final grade, is not the starting point of a negotiation. It is your grade unless an error has been made. If you think an error has been made, let me know within one week of receiving the assignment or exam grade.

**Important!** I do not offer “extra credit” opportunities. If you are struggling in the course, please come for help during the semester when there is still time for me or the TA to help you. Take advantage of our office hours or make an appointment with myself or with the TA. Do not wait until the course is over and ask me to change your grade because you are trying to graduate, or you have had a tough time with your personal life this semester. By then, it is too late for me to help you.

**Honor Code:** Each student in this course is expected to abide by the University of Texas Honor Code.:
*The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.*

**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.
For a tutorial and information on plagiarism, see http://www.lib.utexas.edu/services/instruction/learningmodules/plagiarism/

Also, see http://deanofstudents.utexas.edu/sjs/scholdis.php


- 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.

**Other useful information:**

**Resources for Learning & Life at UT Austin**

- The University of Texas has numerous resources for students to provide assistance and support for your learning.
  - Sanger Learning and Career Center: http://lifelearning.utexas.edu/
  - Undergraduate Writing Center: http://uwc.utexas.edu/
  - Counseling & Mental Health Center: http://cmhc.utexas.edu/
  - Career Exploration Center: http://www.utexas.edu/student/careercenter/
  - Student Emergency Services: http://deanofstudents.utexas.edu/emergency/

**Behavior Concerns Advice Line (BCAL)**

- If you are worried about someone who is acting differently, you may use the Behavior Concerns Advice Line to discuss by phone your concerns about another individual’s behavior. This service is provided through a partnership among the Office of the Dean of Students, the Counseling and Mental Health Center (CMHC), the Employee Assistance Program (EAP), and The University of Texas Police Department (UTPD). Call 512-232-5050 or visit http://www.utexas.edu/safety/bcal
## SCHEDULE: Lectures, labs, exams

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<tr>
<th>AUG</th>
<th>27</th>
<th>INTRODUCTION</th>
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<tr>
<td>SEPT</td>
<td>1</td>
<td>Evolution, natural selection and speciation</td>
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<td>3</td>
<td>Cladistics: Reconstructing phylogenetic relationships</td>
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<td>What is a primate? <strong>Lab 1 (online, due today): Primate form and function</strong></td>
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<td>Extant primates I: Strepsirrhines</td>
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<td>Extant primates II: Haplorhines - Platyrhines</td>
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<td>Extant primates III: Haplorhines - Catarrhines</td>
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<td>Primate origins: Hypotheses</td>
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<td>24</td>
<td><strong>Lab 2 (in class) - Extant primates</strong></td>
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<td>29</td>
<td>EXAM 1</td>
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<td>OCT</td>
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<td>The Paleocene fossil record + Adapoids I: Morphology and adaptations</td>
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<td>Adapoids II: Phylogenetic relationships</td>
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<td>Omomyoids I: Morphology and adaptations</td>
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<td>Omomyoids II: Phylogenetic relationships</td>
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<td><strong>Lab 3 (in class): Early primates</strong></td>
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<td>Early anthropoids I: Morphology, adaptations of Eocene anthropoids</td>
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<td>Early anthropoids II: Morphology, adaptations of Oligocene anthropoids</td>
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<td>Early anthropoids III: Phylogenetic relationships</td>
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<td><strong>Lab 4 (in class): Anthropoid origins (Submit paper topic today)</strong>.</td>
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<td>5</td>
<td>Strepsirrhine evolution</td>
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<td>Platyrhine evolution</td>
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<td>Cercopithecoid evolution</td>
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<td>Hominoid evolution I: Early Miocene/Adaptations and phylogeny</td>
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<td>Hominoid evolution II: Mid-Late Miocene /Adaptations and phylogeny</td>
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<td><strong>Lab 5 (in class) Miocene primates</strong></td>
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<td>THANKSGIVING: NO CLASS</td>
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<td>DEC</td>
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<td>Review for exam 3 and <strong>PAPER DUE TODAY</strong></td>
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<td>EXAM 3</td>
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Reading List

TB=Textbook (Fleagle)

CV= Canvas. Readings are available online via Canvas (Go to http://canvas.utexas.edu and link to ANT 351E). You can also connect to Canvas from the Primate Evolution Website (see below).

PEW= Primate Evolution website: Go to http://www.laits.utexas.edu/shapiro (You can also connect to the PEW from Canvas). To log into PEW, use Name: shapiro, Password: pr1mate (note it’s a 1 not i).

Aug 27  Introduction: What is this course about?


Sept 1  Evolution, natural selection, and speciation


Sept 3 Cladistics: Reconstructing phylogenetic relationships

TB: Fleagle Ch. 1


Recommended reading: Useful websites on cladistics
http://www.ucmp.berkeley.edu/clad/clad4.html

Sept 8  What is a primate?

(online lab (Lab 1: Primate Form and Function) is due today. Submit through Canvas.

TB: Fleagle: Ch. 2

Optional helpful reading:

**Sept 10 Extant Primates I: Strepsirrhines**

TB: Fleagle Chapter 4 (you can skip pp. 73-77 for now)


**Sept 15 Extant Primates II: Haplorhines - Platyrrhines**

TB: Fleagle Ch. 5


Optional additional reading:

**Sept 17 Extant Primates III: Haplorhines - Catarrhines**

TB: Fleagle Chs 6 and 7


Optional:
Sept 22  Primate Origins: Hypotheses

TB: Fleagle pp. 224-225


Optional additional reading:

Sept 24  Lab 2 (in class) - Extant Primates
BRING YOUR LAB ASSIGNMENT TO CLASS (available online in CV)

Sept 29  EXAM 1

Oct 1: The Paleocene fossil record + Adapoids I: Morphology and adaptations

TB: Fleagle Chs. 10, 11

TB: Fleagle pp. 229-247

Look over:

PEW: From fossil database page, click on and read:
Paleocene
Eocene
Adapoids
Optional: Plesiadapiformes

Oct 6: Adapoids II: Phylogenetic relationships


Optional (similar to Switek article):
**Oct 8: Omomyoids I: Morphology and adaptations**

TB: Fleagle pp.247-260


PEW: From fossil database page, click on and read: 
**Omomyoids**

**Oct 13: Omomyids II: Phylogenetic relationships**

See Oct 8.

**Oct 15: Lab 3 (in class): Early primates**

BRING YOUR LAB ASSIGNMENT SHEET TO CLASS (available online on CV)

**Oct 20: Early anthropoids I: Morphology, adaptations of Eocene anthropoids**

Fleagle: pages 265-284 (covers Eocene and Oligocene fossil anthropoids)

PEW: Section on Early Anthropoids

**Oct 22: Early anthropoids II: Morphology, adaptations of Oligocene anthropoids**

TB: Fleagle 311-313


PEW: section on Early Catarrhines: Propliopithecidae

(Reminder: due Oct 29: your paper topic and list of sources.)

**Oct 27: Early anthropoids III: Phylogenetic relationships**

TB: Fleagle pp. 284-286

Oct 29: Lab 4 (in-class): Early anthropoids

BRING YOUR LAB ASSIGNMENT SHEET TO CLASS (available online on CV)

HAND IN PAPER TOPIC

Nov 3: EXAM 2

Nov 5: Strepsirrhine evolution

TB: Fleagle; pages 73-77, 244-246


PEW: Section on Subfossil lemurs

Nov 10: Platyrhine evolution

TB: Fleagle Ch. 14

PEW Section on Platyrhine Evolution

Nov 12: Cercopithecoid evolution

TB: Fleagle Ch. 16


PEW: Section on Cercopithecoida

Nov 17: Hominoid evolution I: Early Miocene/Adaptations and phylogeny

TB: Fleagle pages 313-333


PEW: Hominoid Evolution: Sections on Hominoidea, Proconsulidae, and Incertae Sedis
**Nov 19: Hominoid evolution II: Mid-Late Miocene: Adaptations and phylogeny**

TB: Fleagle, pages 333-339


**Nov 24: Lab 5 (in-class): Miocene primates**

BRING YOUR LAB ASSIGNMENT SHEET TO CLASS (available online on CV)

**Nov 26: Thanksgiving – no class**

**Dec 1: In-class review for Exam 3 and term paper due today!**

**Dec 3: EXAM 3**