

## **Primate Evolution**

ANT 4554C\* section 2B99; ANG 6930 section 2G93

ZOO 4926\*\* section 2H41; ZOO 6927 section 2H44

Spring Semester 2017

### **Course Prospectus**

This course will provide a survey of primate evolution from the Paleocene through Pleistocene epochs. Topics include methods of paleontological inference with an emphasis on problems of taxonomy, phylogeny, biogeography and functional morphology in the fossil record.

#### **Instructor:**

- Jonathan Bloch, Curator and Professor, 222 Dickinson (FLMNH), [jbloch@flmnh.ufl.edu](mailto:jbloch@flmnh.ufl.edu)

#### **Credits:** 3

**Class periods:** Tu 8<sup>th</sup> and 9<sup>th</sup> periods (3:00 to 4:55 pm)/Thursday 9<sup>th</sup> period (4:05-4:55)

**Prerequisite:** \*Prereq: ANT 3514C or instructor permission; \*\*Prereq: BSC 2011 and 2011L or equivalent and instructor permission

**Room:** First (Organizational) Meeting on January 5th: TUR Rm 2318;

\*\*All other classes will meet in Dickinson Hall Rm 371\*\* (Change from original schedule)

#### **Grades will be based on**

- Mid-term exam (30%). This is an open-book take-home exam covering all material from the first half of the course.
- Research Paper (25%). Topics must be chosen and briefly summarized in written form by **March 2**. This is an opportunity to explore a “Primate Evolution” topic of interest to you in more depth than what we cover in the course. It is expected to be in the 5-10 page range and fully referenced with a bibliography (websites are very strongly discouraged as a reference source). Final paper is due on **April 18**.
- End term Exam (30%)
- \*Class attendance and participation in discussions/labs (15%)

#### **Readings**

Journal/book articles assigned from the primary literature. Will use the following text:

Primate Adaptation & Evolution, 3rd Ed (2013) by John Fleagle. Academic Press

**\*Note on Assigned Reading:** As you read through each chapter or paper, please write down several of what you consider to be the most interesting/important facts or ideas. This should be limited to just a sentence or two for each reading. Hopefully you find this useful...but, also consider this a written assignment to be turned in at the beginning of each class. These will be used in part to evaluate class attendance & participation.

Schedule (Please Note: *subject to change*):

Jan. 5	Overview	Introduction
10	Lecture	Evolution, Systematics, Osteology Reading: Fleagle--Chapters 1, 2, 3
12	Lecture	Primate Adaptations, Fossil Record & Geology Reading: Fleagle—Chapters 8, 9, 10
17	Lecture/Lab 1	Euarchonta and the origin of primates/Lab 1: Plesiadapiform fossils Reading: Fleagle—Chapter 11
19	Discussion	Evaluating adaptive theories of Primate Origins Reading: 2-3 short journal articles TBD
24	Lecture	“Prosimians”: Lemurs, Lorises, Galagos & Tarsiers Reading: Fleagle—Chapter 4
26	Guest Lecture	Professor Philip Gingerich: Early Euprimates-Adapoids Reading: Fleagle Chapter 12 (pages 229-246); 2 short journal articles TBD
31	Lecture	Early Euprimates: Early Euprimates-Omomyoids & PETM Reading: Fleagle—Chapter 12 (247-260)
Feb. 2	Lab 2	Extant “Prosimians” and Eocene Primate fossils
7	Lecture	Anthropoid Origins and Early Anthropoids Reading: Fleagle—Chapter 13
9	Discussion	Controversies in Anthropoid Origins Reading: 2-3 short journal articles TBD
14	Lab 3	Early Anthropoid fossils
16	Lecture	Introduction to New World Monkeys Reading: Fleagle—Chapter 5
21	Lecture	Fossil New World Monkeys Reading: Fleagle—Chapter 14
23	Discussion	Controversies: Phylogeny & Biogeography of New World Monkeys Reading: 2-3 short journal articles TBD
28	<b>Mid Term Exam</b>	Based on lectures, book & journal article readings, discussions, and labs to date
Mar. 2	Discussion	Discuss exam results; <b>Research paper topic summaries Due</b>
7	<b>**No Class**</b>	<b>UF Spring Break</b>
9	<b>**No Class**</b>	<b>UF Spring Break</b>
14	Lecture	Primitive Catarrhines and Apes Reading: Fleagle—Chapter 7, 15

16	Discussion	New Discoveries: Fossil Apes Reading: 2-3 short journal articles TBD
21	Guest Lecture	Dr. Lauren Gonzales: Old World Monkeys Reading: Fleagle—Chapter 6, 16
23	Guest Discussion	Dr. Lauren Gonzales: New Discoveries--Fossil Record of Old World Monkeys Reading: 2-3 short journal articles TBD
28	Lab 4	Fossil Monkeys and Apes
30	Lecture	Fossil Hominins Reading: Fleagle—Chapter 17
Apr. 4	Discussion	New Discoveries-- Fossil Hominins Reading: 2-3 short journal articles TBD
6	Lecture	Patterns in Primate Evolution Reading: Fleagle—Chapter 18
11	Lecture	Humans, climate, and extinctions
13	Discussion	Pleistocene Extinctions & the Anthropocene Reading: 2-3 short journal articles TBD
18	<b>Research Papers Due</b>	
25	<b>Final Exam*</b>	Based on lectures, readings, discussions, and labs since the midterm. *Tuesday, April 25 from 12:30-2:30 PM. <u>Tur 2318 set aside for this time.</u>