Ant 348: Human Origins and Evolution
(31375, 31380, 31385, 31390)

Syllabus

INSTRUCTOR: John Kappelman
OFFICE: SAC 5.160: telephone: 471-0055; office hours M W 12-1 pm or by appointment
Web Site: *http://www.utexas.edu/cola/depts/anthropology/faculty/jwk5664*

TEACHING ASSISTANT: Brett Nachman
Office: SAC 5.170: telephone: 232-3905

LECTURE MEETINGS: M and W: 11-12 pm in SAC 4.174
LABORATORY MEETINGS: M 5-7 pm (31385), SAC 4.174; W 5-7 pm (31390), SAC 4.174; F 12-2 pm (31375), SAC 5.172; F 2-4 pm (31380), SAC 5.172

COURSE WEB SITE: http://www.utexas.edu/cc/blackboard
We will use Blackboard for lecture and lab announcements, assignments and notices. You need to have an UTEID to access the Blackboard site.

INTRODUCTION: This course examines the evidence for the origin and evolution of humans with particular emphasis placed on reconstructing the paleobiology of extinct hominins. Lectures will draw upon a diverse range of disciplines (anatomy, archaeology, ecology, ethology, genetics, geology, paleontology) and integrate these into a framework for understanding the history of this unusual group of primates. The laboratories provide the student with an opportunity to examine firsthand the fossil evidence for human evolution.

READINGS: The following textbooks are required for the course:
Klein, R.G. 2009. *The Human Career*. The University of Chicago Press. Third edition.
Kappelman, J. 2007. *Virtual Laboratories in Physical Anthropology*. Wadsworth Publishing Company. CD ROM. Edition 4.0.
Sourcebook and lab materials. This reader includes a number of required articles from the primary literature along with the laboratory readings and assignments and will be posted to Blackboard.

The following popular books are optional for the course and can be found in the UT library:
Arsuaga, J. 2002. *Neanderthal Necklace: In Search of the First Thinkers.*
Lewin, R. 1993. *Human Evolution: An Illustrated Introduction, Third edition*.
Aiello. L. and Dean, C. 1990. *Human Evolutionary Anatomy*.
Reader, J. 1981. *Missing Links: The Hunt for Earliest Man*.

EXAMINATIONS: The two exams are computer-based multimedia exams and will be administered during regular lab times. There will be a take-home open book essay question given with both exams and submitted via email.

GRADING: The course material will be introduced during lecture. Weekly laboratory problem sets will serve to highlight specific topics. The final grade for the course will be calculated as follows:

1.	Laboratory and Reading Responses/Online Discussions	40%
2.	Examination #1	20%
3.	Examination #2	30%
4.	Class and Lab Participation	10%
	TOTAL	**100%**

A 348 Lecture Schedule

Jan. 18	Introduction to the course
Jan. 23	Observations on Human Evolution I
Jan. 25	Evolution and Natural Selection
Jan. 30	Natural Selection and Adaptation
Feb. 1	Adaptation
Feb. 6	Geological Dating Techniques
Feb. 8	Miocene Hominoids
Feb. 13	Hominoid Phylogeny
Feb. 15	Climates and Environments of the Late Miocene
Feb. 20	Early Hominins of Africa
Feb. 22	Hominin bipedalism
Feb. 27	Early Hominin Paleobiology
Feb. 29	Early Hominin Phylogeny
Mar. 3	**Explore UT (Saturday, 11-5 pm)**
Mar. 5	The World of Taung
Mar. 7	Early *Homo*
Mar. 5-9	**EXAM #1 given during lab times (includes all material through the lecture of 5 March and Lab 6)** **TAKE HOME ESSAY #1: available on 5 March and due on 9 March**
Mar. 12-16	**Spring Break (no lecture or lab)**
Mar. 19	*Homo erectus*
Mar. 21	Archaic *Homo sapiens* I
Mar. 26	Archaic *Homo sapiens* II
Mar. 28	Lower and Middle Paleolithic Archaeology
Apr. 2	Modern *Homo sapiens*
Apr. 4	The Evolution of Brain Size and Body Mass

Apr. 9	Late Pleistocene Archaeology /Paleolithic Art
Apr 11	AAPA Meetings (No Lecture)
Apr. 16	Humans enter the New World
Apr. 18	Sedentism and the Rise of Agriculture
Apr. 23	Modern Human Adaptations I
Apr. 25	Modern Human Adaptations II
Apr. 30	Concluding Remarks
May 2	Exam #2 available during lecture hour
Apr. 30-May 4	**EXAM #2 given during lab times** **TAKE HOME ESSAY #2: available on 30 Apr. and due on 4 May**

WEBSITES:
Other websites that you will find useful include in the study of the course materials:

The primate skeleton: www.eSkeletons.org
The famous fossil Lucy: www.eLucy.org
The human fossil record: www.eFossils.org

STATEMENT ON ACADEMIC INTEGRITY

Students who cheat not only cheat themselves but also cheat other students in the course and the University. This course has a zero tolerance policy for cheating. Any student found cheating (e.g.,, discussing or exchanging answers on exams or lab assignments, submitting work on behalf of another student, etc.) will be directed to the appropriate University authorities. To review the UT policy, see http://deanofstudents.utexas.edu/sjs/

IMPORTANT DATES TO REMEMBER

20 January	Last day of official add/drop period
1 February	Twelfth Class Day
13 February	Last day to DROP course without possible academic penalty
12-16 March	Spring Break
2 April	Last day a student may, with dean's approval, withdraw or change pass/fail status

LABORATORY SCHEDULE

Jan. 17 - 27	**No Lab Meetings**
Jan. 30 – Feb. 3	Lab 1: An introduction to primates. Taxonomy, body size and allometry, diet, biomechanics, behavior. (review CD 1-5)
Feb. 6 - 10	Lab 2: Fossil Hominoidea of the Miocene Period. Origins, adaptations and phylogeny. Are there any Miocene hominins? (CD 7)
Feb. 13 - 17	Lab 3: Molecular phylogenetics. DNA-DNA hybridization, mitochondrial DNA, immunological studies, sequencing studies. What do molecules tell us about primate phylogeny? (CD 2)
Feb. 20 - 24	Lab 4: The australopithecines. Origins of bipedalism. Sexual dimorphism. Diet. (CD 8 & 9)
Feb. 27 – Mar. 2	Lab 5: The origin of *Homo*. Changes in postcranial, cranial, and dental anatomy. (CD 10)
Mar. 5 - 9	**Exam #1 given during regular lab hours**
Mar. 12 - 16	**Spring Break**
Mar. 19 - 23	Lab 6: *Homo erectus* and archaic *Homo sapiens*. Further increases in brain size. Hominins expand their range. Who were the Neanderthals? (CD 10)
Mar. 26 - 30	Lab 7: Hominin systematics. Cladistics on the computer.
April 2 – 6	Lab 8: The origin of modern humans. Paleontological and molecular evidence. The "Eve" hypothesis and mtDNA. (CD 12)
Apr. 9 - 13	**Lab 9: Exercise and Topic TBA**
Apr. 16 - 20	Lab 10: Paleolithic archaeology. Faunal analysis. (CD 11)
Apr. 23 - 27	Lab 11: Modern Humans. Skeletal Biology: Studies of form and function on the computer (CD 12)
Apr. 30 – May 4	**Exam #2 given during regular lab hours**

INTRODUCTION TO THE LABORATORIES

The laboratory sections of this course are designed to provide you with the opportunity to gain hands-on experience with the materials and methods of paleoanthropology. Because such experience is vital to a better understanding of the course of human evolution, the grade you receive in lab will account for 40% of your total grade in the class. It is essential that you attend lab. The following guidelines will be followed for lab sections:

1) All lab assignments are due at the **beginning** of the following week's lab.

2) **NO** late lab homework will be accepted unless a documented and verifiable excuse (*e.g.,* doctor's note, obituary, etc.) is provided by the student. If you anticipate a difficulty ahead of time, or have a documented conflict as a consequence of a university activity, you should contact the TA or professor ***ASAP.***

3) You must attend the lab section for which you are registered. If an unforeseen problem arises and you cannot attend this lab, talk to the TA in order to see if you can attend a different session. Your lab assignment will still be due at the beginning of the lab section that you are registered for.

4) While we encourage you to interact and exchange ideas with other students, the lab assignments that you submit **must be your own work**.