

Anthropology 219  
Human Evolution & Prehistory  
Spring 2009

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### Syllabus

**Course Description:** This is an introductory course, which focuses on human evolution as it has occurred in the last 4 to 5 million years. The first half of the course concentrates on the evolutionary theory, the principles of genetics, the living and fossil primates with a special focus on those most like ourselves – monkeys and apes. We read about our close primate relative, the bobobo. The second part of the course details the hominid fossil record and concerns the fascinating story of how we came to be human, that is, upright, brainy, bipedal creatures capable of tool use, hunting, sharing, co-parenting and speaking.

**Books:** B. Campbell & J. Loy                      Humankind Emerging. The Concise Edition  
Franz De Waal & F. Lanting                      Bonobo: The Forgotten Ape

### Requirements and Grading:

First hourly quiz	15%	(Feb 17)
Second hourly quiz	15%	(March 17)
Final exam	30%	(Final exam period)
Research report (see below)*	25%	(April 16)
Participation**	<u>15%</u>	(Based on attendance and class report)
	100%	

**Student Code of Behavior:** You are bound by *Community Standards for Academic Conduct* in the Student Handbook. The specific rules are below. I thank you in advance.

1. **Exam Policy:** Exams are governed by the Honor Code. If you observe an infraction, please report it to me. Do not miss an exam; there are *no make-ups unless there are truly exceptional circumstances, as determined by me*. Cell phones etc must be stored away during the exam.
2. **Papers:** Evidence of plagiarism will net an “F” in the course. Plagiarism includes borrowing, in whole or part, from any source without proper citation. Late penalties apply – usually 10 points per day.
3. **Attendance:** You are expected to attend all classes, and arriving late (unless excused) amounts to an absence. An email or one from the Student Affairs about an absence is a welcome courtesy, but it *does not automatically lead* to an excused absence. Unexcused absences can lower your grade by as much as a letter grade.
4. **Classroom Protocol:** I can see clearly what is going on, so please observe basic rules of civility: arrive on time, turn off phone, do not talk or eat in class. Kindly do not get up and leave while the class is in session.
5. **Email:** Please use email as a formal mode of communication (i.e. like a business letter) with the appropriate parts, correct spelling, and polite language.

### **\*Report – Option #1 – Darwin’s Voyages and Theory of Natural Selection. Due April 16**

You are to read about his voyages on the Beagle and especially his stop at the Galapagos Islands. Write a description of the voyage around the world, his time on the ship, the stops, what he collected, and what he began to think about with respect to the idea of natural selection. In some detail, explain his thinking about natural selection that culminated in his joint article with Alfred Russell Wallace in 1859.

You are to read the online version of Darwin. The first URL is a free Adobe download:

<http://www.gutenberg.org/files/3704/3704-h/3704-h.htm>

[http://en.wikipedia.org/wiki/The\\_Voyage\\_of\\_the\\_Beagle](http://en.wikipedia.org/wiki/The_Voyage_of_the_Beagle) has good references at end.

<http://www.aboutdarwin.com/voyage/voyage01.html>

You can look for more.

**Good video:** *Darwin’s Revolution in Thought* (will be on reserve)

**Book:** *On the Origin of Species* (will be on reserve)

**\*Report – Option #2: “Pick a primate: monkey or ape.”** Due April 16

Pick a monkey or ape species to study in depth. *Please avoid bonobos and prosimians.* Some possibilities are: Old World monkeys (langurs, macaques, baboons, etc) or New World monkeys (capuchins, marmosets, howlers); apes such as gorillas, orangutans, gibbons, etc. Your report should cover topics such as geographic distribution, habitat, physical appearance, diet and feeding patterns, reproduction and parenting, dominance, defense, sharing if applicable, gender relations and additional unique features of your primate. You are encouraged to include maps and pictures, but *cite sources* for these. You should use *at least two print sources*, including *Walker’s Mammals of the World* found in the library. Choose Web sources carefully. Some books are:

Dian Fossey – **Gorillas in the Mist**  
Sarah Hrdy – **Langurs of Abu**  
Shirley Strum – **Almost Human**

Meredith Small – **Female Primates**  
Franz de Waal – **Peacemaking among Primates**

**Style and format instructions for Paper:** Make your paper original. Do not cut and paste from your sources (that’s plagiarism and will fail the paper). The paper should be typed and double-spaced, in 12-point font, with normal margins. Length should be 8 to 10 pages, excluding the references and title page. Include a title page with title, course name, your name, and date. The *References* section should follow the standard formats as APA or MLA. Web sources should include, where possible, author and title, URL and date of visit. Points deducted for poor style and organization, grammar, and typos.

**\*\* Participation:** Based on attendance, class contributions, and one short report. Each person will give a verbal rendition of chapters assigned from the bonobo book or present highlights from their written report in class.

**Outcomes and Assessment:**

1. Understanding of key concepts and theories in evolutionary theory, genetics, derived traits of hominids, race and human variability. Assessed by exams and class discussion.
2. Ability to weigh and assess competing theories about evolved traits such as bipedalism, intelligence, language, tool use, religious consciousness, etc. Assessed by exams.
3. Awareness of cognitive and behavioral similarities (and differences) between human and closest non-human primates. In depth understanding of at least one species of non-human primate. Assessed by primate report, exam, and class discussion.
4. Understanding of humans as bio-social animals. Assessed by exams.
5. Critical awareness of scientific method as it applies in paleo-anthropology. Assessed by exams.
6. Ability to research and write up results of ethological investigation. Assessed by report.

**Schedule** (Please do reading before each class)

Week 1

Jan 20 Four fields of anthropology.

Jan 22 Review of scientific method. Enterprise of paleo-anthropology. Fossil dating techniques.  
**Read:** Campbell & Loy chapter 1

Week 2

Jan 27 Early theories of geology – catastrophism and uniformitarianism. "Fixity of Species."

Jan 29 Evolution: Darwin, Wallace, and Malthus. **Read:** Campbell & Loy - chapter 1.

Week 3

- Feb 3 Herbert Spencer & macro-level evolution. Implications of the Burgess Shale.  
**Read:** Handout on the Burgess Shale and ID. Campbell & Loy chapter 2  
**Video:** Understanding Evolution (portions of -- 49°, CCC)
- Feb 5 Contemporary challenges from religion: Creationism and Intelligent Design

Week 4

- Feb 10 Mendel's experiments and development of genetics.
- Feb 12 Population genetics: speciation, extinction, fitness, sexual selection. Race and phenotypic racial features as an adaptation.  
**Read:** Campbell & Loy chapter 3.

Week 5

- Feb 17 **First Hourly Quiz (15%)** (Do not miss quiz. There are no make-ups)
- Feb 19 **PPT** of zoo animals and **Video:** *Survey of the Primates*

Week 6

- Feb 24 Living primates: appearance, and behaviors. Derived human characteristics. How hominids are different from apes.  
**Read:** Campbell & Loy chapter 4: pp 75-99, chapter 5 .
- Feb 26 **Video:** *Ape Genius*

Week 7

- March 3 & 5 **Bonobos:** de Waal & Lantings' findings on bonobos, (pygmy chimps). Student presentations on selected chapters from *Bonobos: The Forgotten Ape*. I will assign chapters.  
**Read:** *Bonobos: The Forgotten Ape*

**Spring Break**

Week 8

- March 17 **Second Hourly Quiz (15%)** (Do not miss quiz. There are no make-ups)
- March 18 Primate evolution in the Paleocene. **Read:** Campbell & Loy chapter 6

Week 9

- March 24 Australopithecus and Paranthropus. Campbell & Loy chapter 7.
- March 26 **Video:** *Ape Man: Human Puzzle*.

Week 10

March 31 Homo habilis and rudolfensis. **Read:** Campbell & Loy chap 8

April 2 Evolution of hominid traits: bipedalism, increased brain size, tool use. Oldowan chopper tools. **Read:** Campbell & Loy chapter 8

Week 11

April 7 Homo erectus: sites of discovery and behaviors. Latest news from Dmanisi site. The “hobbits” of Indonesia. **Read:** Campbell chap 9 and Handout

April 9 **Video:** *Ape Man: Giant Strides*

Week 12

April 14 Evolution of language. **Read** Campbell & Loy chapter 4, pp. 101-106.

April 16 Student presentations on Darwin report (for those who did not present chapters from *Bonobos* book.) Graded. **Primate Report due today.**

Week 13

April 21 H. heidelbergensis and H. neandertalensis. **Read:** Campbell & Loy chapter 10.

April 23 **Video:** *Neanderthal* (97mins) (50° CCC)

Week 14

April 28 Emergence of modern Homo sapiens. Cro-Magnon anatomy, migrations, art and magic  
**Read:** Campbell & Loy chapter 11, 12.

April 30 Course wrap up.  
**Video:** *The Human Journey Pt 3: Creative Explosion* (50° CCC)

**Final exam covers material from second exam and is in exam period. Check campus web for final grade; please do not contact me.**