

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 closest 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%	(Sept 24)
Second hourly quiz*	15%	(Oct 15)
Final exam**	30%	(Final exam period)
Primate report	25%	(Nov 12)
Participation	<u>15%</u>	(Based on attendance and 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 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 – “Pick a primate: monkey or ape.” Due Nov. 12th

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 application, 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**
R. Wrangham – **Chimpanzee Cultures**
Christopher Boehm – **Hierarchy in the Forest**

Meredith Small – **Female Primates**
Franz de Waal – **Peacemaking among Primates**
Shirley Strum – **Almost Human**

Style and format instructions: 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 Cited* 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.

Learning Objectives:

1. Students are expected to master the content about human and non-human primates and about human evolution as it has occurred over the past five million years.
2. Comprehend science as a cumulative enterprise and science as a method of systematic inquiry. Coverage of the history of discovery of fossils demonstrates that the knowledge base of paleo-anthropology is constantly being challenged and revised as new findings are revealed
3. Physical anthropology is at the crossroads of biological and social perspectives on behavior. Students will come to appreciate the biosocial basis of human institutions such as mating, parenting and gender roles.
4. Humans among other animals are unique for evolving in a physical way and a cultural way. Students will learn to appreciate both biological change and cultural change that led to the human societies of today.

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)

- Aug 27 Four fields of anthropology. Review of scientific method. Enterprise of paleo-anthropology. Fossil dating techniques.
Read: Campbell & Loy chapter 1
- Sept 3 Early theories of geology – catastrophism and uniformitarianism. "Fixity of Species."
Evolution: Darwin, Wallace, and Malthus.
Read: Campbell & Loy - chapter 1.
Video: Understanding Evolution (portions of -- 49°, CCC)
- Do Web search for information about Darwin's voyage on the Beagle and discuss in class. Try <anselm.edu/homepage/dbanach/Darwin.html>
(Hand in 1-2 pages for bonus points.)

- Sept 10 Herbert Spencer & macro-level evolution. Implications of the Burgess Shale. Contemporary challenges from religion: Creationism and Intelligent Design
Read: Handout on the Burgess Shale and ID. Campbell & Loy chapter 2
- Sept 17 Mendel's experiments and development of genetics. Population genetics: speciation, extinction, fitness, sexual selection. Race and phenotypic racial features as an adaptation.
Read: Campbell & Loy chapter 3.
- Sept 24 **First Hourly Quiz (15%)** (Do not miss quiz. There are no make-ups)
Video (after exam): *Survey of the Primates*
- Oct 1 Living primates: appearance, and behaviors. Derived human characteristics. How hominids are different from apes.
Read: Campbell & Loy chapter 4: pp 75-99, chapter 5 .
Video: *Ape Genius*
- Oct 8 *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*
- Oct 15 **Second Hourly Quiz (15%)** (Do not miss quiz. There are no make-ups)
Primate evolution in the Paleocene. **Read:** Campbell & Loy chapter 6
- Oct 22 Australopithecus and Paranthropus. Campbell & Loy chapter 7.
Video: *Ape Man: Human Puzzle*.
- Oct 29 Homo habilis and rudolfensis. Evolution of hominid traits: bipedalism, increased brain size, tool use. Oldowan chopper tools
Read: Campbell & Loy chapter 8
- Nov 5 Homo erectus: sites of discovery and behaviors. Latest news from Dmanisi site. Evolution of language. **Read** Campbell & Loy chapter 4, pp. 101-106 and chap 9.
Video: *Ape Man: Giant Strides*
- Nov 12 H. heidelbergensis and H. neandertalensis.
Read: Campbell & Loy chapter 10.
Primate Report due today.

Nov 19 (I will be at national meetings) Student presentations on primates (those who did not present chapters from *Bonobos* book can do short report on primate project for. Hand in for participation grade) Campbell & Loy chapter 11
Video: *The Human Journey: Tale of Two Species* (50° CCC)

Nov 26 Thanksgiving break

Dec 3 Modern Homo sapiens. Cro-Magnon anatomy, migrations, art and magic
The “hobbits” of Indonesia. **Read:** Campbell & Loy chapter 11 , 12.

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