ANTHROPOLOGY 201 A/B **FALL, 2006**

BIOLOGICAL ANTHROPOLOGY

Instructor: **Dr. L. Epstein**
Offices: **Social Science Division: Building 4; A-251 (main office)**
Phone: **(425) 564-4189; (405) 564-2331**
Office Hours: **10:30 daily, or by appointment**

YOU ARE REQUIRED TO REVIEW THIS SYLLABUS AND THE ATTACHED SOCIAL SCIENCE DIVISION POLICY STATEMENT

LECTURE TOPICS

DARWINIAN EVOLUTION: Darwin's place in intellectual history; the scientific method contrasted with absolutist or rationalist approaches; Darwin's predecessors and their contribution to Darwinian thought; the background to Darwin's formulation of evolutionary theory; the principles of Darwinian evolution.

GENETICS AND EVOLUTION: Some background to Mendelian genetics and cell bio-logy; mitosis and meiosis; the structure and function of DNA; protein synthesis; the basic Mendelian mechanisms, terms, concepts and principles; Mendelian traits, polygeny and other deviations from Mendelian genetics in humans.

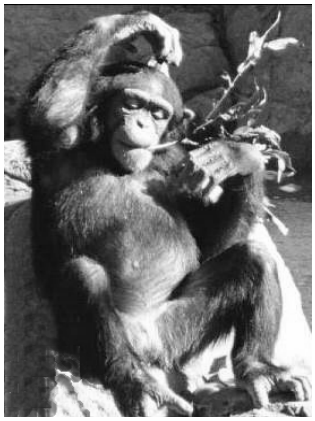
POPULATION GENETICS: The synthetic or modern theory of evolution; the Hardy-Weinberg Equilibrium; the evolutionary interpretation of $H\beta^s$ and other polymorph-isms in human evolution.

HUMAN VARIATION: The meaning of race in biology; racial classification schemes; clinal analysis; selective factors in *in situ* populations; selection, biology and culture.

BIOLOGICAL TAXONOMY: Classification systems; the principles of Linnæan taxonomy; the vertebrate classes; the mammals; evolutionary trends of the primate order; a survey of living primates; cladistic analysis.

PRIMATE BEHAVIOR: The mother-infant bond; dominance; the sex bond in relation to resource quality and distribution; separation of roles by age and sex; intelligence, learning and communication in nonhuman primates.

COMPARATIVE ANATOMY: The skeletal anatomy of living hominids and pongids.

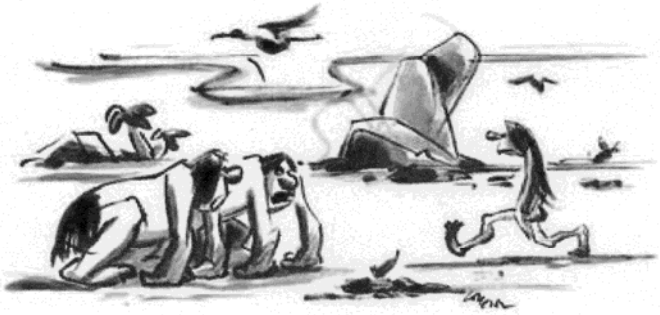


EARLY PRIMATE EVOLUTION: The meaning of species; a survey of primate evolution in the Paleocene, Eocene and Oligocene; Miocene hominoid evolutionary trends; the dental morphology of Miocene hominoids; reproductive barriers; macroevolutionary models: cladogenesis, anagenesis, and punctuated equilibrium.

THE EAST AFRICAN RIFT VALLEY SYSTEM: Late Miocene paleogeology; fossilization; relative and chronometric dating; paleoclimates; hypotheses concerning hominization.

PLIO-PLEISTOCENE HOMINID PALEOANTHROPOLOGY: The discovery, anatomy and interpretation of early hominid material; the primitive and derived australopithecines, and early forms of *Homo*; comparative anatomy of the australopithecines and *Homo*; phylogenetic interpretations.

PLEISTOCENE HOMINID PALEOANTHROPOLOGY: The discovery, comparative anatomy and analysis of *Homo ergaster*, *Homo erectus*, *Homo heidelbergensis*, *Homo neandertalensis* and *Homo sapiens*; hominid phylogenies and the origin of modern humans.



"Ignore him. He just walks that way to bug his parents."

Lee Lorenz, *New Yorker Magazine*, (6/6/1994)

READING AND TESTING SCHEDULE

The assigned textbook is Robert Jurmain, Lynn Kilgore, *et al*., *Essentials of Physical Anthropology* (sixth edition). Please have the readings completed by the assigned dates. (The schedule below may be subject to change.) The lectures are designed principally to highlight and interpret the more important aspects of the readings, as well as to update information in the book. Students will be held responsible for participating in class discussions of the reading and lecture materials.

Week	Monday	Tuesday	Wednesday	Thursday	Friday
I	**Sept 18**	**19 Ch. 1**	**20**	**21 Ch. 2**	**22**
II	**Sept 25 Ch. 3**	**26**	**27 TEST #1**	**28 Ch. 4**	**29**
III	**Oct 2 Ch. 12**	**3**	**4**	**5**	**6**
IV	**Oct 9**	**10 TEST #2**	**11 NO CLASS**	**12 Ch. 5**	**13**
V	**Oct 16 Ch. 6**	**17**	**18**	**19 Ch. 7**	**20**
VI	**Oct 23**	**24**	**25 TEST # 3**	**26 P. 99; Ch. 8: 172-183**	**27 ANATOMY**
VII	**Oct 30 NO CLASS**	**31 ANATOMY**	**Nov 1 ANATOMY**	**2**	**3**
VIII	**Nov 6 TEST #4**	**7 Ch. 8: 184-215**	**8**	**9**	**10**
IX	**Nov 13**	**14**	**15**	**16 TEST #5**	**17 Ch. 9**
X	**Nov 20 Ch. 10**	**21 Ch. 11**	**22**	**23 HOLIDAY**	**24 HOLIDAY**
XI	**Nov 27**	**28**	**29**	**30**	**Dec 1 MAKE-UPS**
XII	**Dec 4 TEST #6**				

YOU ARE REQUIRED TO BRING A SCANTRON ANSWER SHEET AND A #2 PENCIL TO ALL TESTS

All tests will be multiple-choice. Lecture, reading, visual and class discussion materials will be covered on the tests. Each test will count equally and may be expected to cover primarily the current section of the readings and lectures, although some questions referring to earlier materials may be included. The sixth test will follow the same procedure and will not be a comprehensive final. Students must take all six tests, although students receiving grades of 90% or better on the first five exams may be excused from taking the sixth. No test may be dropped. The following are the minimum grade parameters:

95% = A	77% = C+
90% = A-	70% = C
87% = B+	65% = C-
83% = B	60% = D+
80% = B-	55% = D

54- = F

You are expected to read the page assignments in a timely fashion and be prepared to answer questions on them. Your basic final grade will be determined by averaging your test grades. Additionally, your in-class participation and preparedness will also be taken into consideration in establishing your final grade.

DO NOT MISS AN EXAM. ALL MISSED TESTS MAY BE MADE UP ONCE AND ONLY ONCE DURING THE QUARTER DURING THE LAST CLASS HOUR ON DECEMBER 1.
ONCE TAKEN, A TEST MAY NOT BE MADE UP.

OTHER INFORMATION

Tests must be returned after each test. You may check your answers by consulting the keys and grade distributions which will be posted in A-100 (north wall). The results of your last test and your class grade may be obtained from me by providing me with a self-addressed stamped envelope on the day of the last test.

No extra credit assignments will be given or permitted.

Talking aloud, private conversations and other interruptions of this class will not be tolerated. If you are issued a warning for violating this policy, your class grade will be lowered by one full letter grade. A second warning will result in a failing class grade.

Learning Objectives

- To demonstrate an understanding of the historical contexts and consequences of natural science and social science concepts developed for and directed at a holistic and comparative approach to human behavior.

- To recognize, identify and use the scientific method, in particular the principles of biological evolution, and to distinguish coherent arguments based on such principles from other claims.

- To show knowledge of the general elementary principles of molecular, Mendelian and population genetics and their synthesis with evolutionary explanation.

- To apply contemporary concepts in re human variation, such as clinal analysis and selective factors in population biodynamics, and distinguish such approaches from older paradigmatic formulations.

- To apply taxonomic and cladistic concepts and principles toward an analysis of zoological sets, focusing on evolutionary trends through a survey of the living primates.

- To observe and recognize phyolgenetic behaviors demonstrated throughout the primate order with particular attention to the dynamic biocultural interactions between ecological settings and the construction of social groups and behaviors.

- To compare the gross anatomy of the living hominids and pongids, and gain knowledge of elementary geological, paleontological and dating principles and technologies.

- To demonstrate detailed paleoanthropological knowledge of fossil hominoids and hominids, enabling the contrast, comparison and

construction of hypothetical phylogenetic interpretations of hominid lineages and the selective evaluation of competing theories of hominization.

GENERAL EDUCATION RATINGS

Biological Anthropology (ANTH 201) has the following General Education Ratings:

REASONING			**COMMUNICATION**				
Critical Thinking, Creativity, Problem-Solving	Quantitative/ Logical	Research/ Information Literacy	Reading	Writing	Listening, Speaking	Visual	Computer Literacy
3	2	2	2	0	2	0	0

RESPONSIBILITY				**CULTURAL TRADITIONS**		
Self-Assessment/ Life Goals	Group Processes	Ethics	Lifelong Learning	Historical & Intellectual Perspectives	Aesthetic Awareness	Cultural Diversity
0	0	1	1	2	0	1

SCIENCE & ENVIRONMENT		
Nature of Science	Science & the Natural World	Technology & Society
3	2	1

What do these ratings mean?
0 = Course does not include instruction and assessment of this area.
1 = Course includes instruction and practice of the general-education area, and performance/knowledge of this area is assessed.
2 = Course includes instruction and practice in two or more of the outcomes of this general-education area, performance/knowledge is assessed, and 20% or more of the course focuses on it.
3 = Course includes instruction and practice in at least half of the outcomes of this general-education area, performance/knowledge is assessed, and 1/3 or more of the course focuses on it.

Please consult BCC's Course Catalog for more information on General Education Ratings.