

HUMAN EVOLUTION

ANTH-UA 2

SPRING 2013

Dr. Scott Williams (sawilliams@nyu.edu)

Office: 701 Rufus Smith Hall (25 Waverly Place)

Office Hours: Wed 2:30-4:30, or by appointment

(4 credits) Evolutionary theory is the unifying theme of the natural sciences. This course provides a comprehensive introduction to the field of biological anthropology in which we explore our evolutionary history. The course covers human and population genetics, modern human biology and variation, primate osteology, behavior, ecology, and evolution, human osteoarcheology, and paleoanthropology. Particular emphasis is placed on the human fossil record.

Lecture: Tues/Thurs @ 2:00-3:15 in Cantor 101

Lab: 1 session per week as registered; Rufus Smith Hall (25 Waverly Pl), Room 204

LABS BEGIN THE 2nd WEEK OF CLASSES

002 W 9:30-10:45, AI: Saine

003 W 11-12:15, AI: Saine

004 W 12:30-1:45, AI: Ludeman

005 W 2-3:15, AI: Blaszczyk

006 W 3:30-4:45, AI: Blaszczyk

007 TH 9:30-10:45, AI: Villamil

008 TH 11-12:15, AI: Villamil

009 TH 12:30-1:45, AI: Ludeman

Office Hours/Contact Information – All offices are in 25 Waverly Place:

AIs: You may go to the office hours of ANY AI, not just the AI in charge of your lab.

Maryjka Blaszczyk (mbb348@nyu.edu) Thurs 11:30-1:30, 4th floor laboratory

Elissa Ludeman (eml410@nyu.edu) Thurs 3:30-5:30, Room 901

Elle Saine (msaine@sas.upenn.edu) Wed 12:30-2:30, Room 702

Catalina Villamil (civ207@nyu.edu) Tues 3:30-4:30 and Thurs 12:30-1:30, Room 904

Textbook:

Stanford, Allen, Antón. *Biological Anthropology*, 3rd edition. Pearson: Prentice Hall, 2011.

Course Requirements:

There will be two in-semester exams (3/14 & 4/25; 22 points each), a final exam (5/21; 28 points), and lab reports and quizzes (28 points). **Exams are cumulative but will concentrate on new material.**

Point Distribution (*subject to modification*):

Exams	72
Lab reports/quizzes	<u>28</u>
<i>TOTAL</i>	100

SCHEDULE (*subject to modification – check Classes frequently for schedule updates*)

Tuesday	Thursday	Lab
<i>January 29th</i> What is biological anthropology? <i>Introduction</i>	<i>January 31st</i> Origins of evolutionary thought <i>Chapter 1; Chapter 4, p. 101-104</i>	<i>Week 1</i> NO LAB
<i>February 5th</i> Cellular & molecular biology <i>Chapter 2</i>	<i>February 7th</i> Mendelism & the mechanism of inheritance <i>Chapter 3</i>	<i>Week 2</i> Lab 1: The human skeleton
<i>February 12th</i> Evolutionary theory <i>Chapter 4, p. 93-101, 110-114</i> <i>Appendix C</i>	<i>February 14th</i> Species & speciation <i>Chapter 4, p. 105-110</i>	<i>Week 3</i> Lab 2: Forces of evolution & genetics
<i>February 19th</i> Population genetics & human adaptation <i>Chapter 5, p. 127-152</i>	<i>February 21st</i> Modern human variation <i>Chapter 5, p. 117-126</i>	<i>Week 4</i> Lab 3: Race
<i>February 26th</i> Our place in nature <i>Chapter 6, p. 155-157</i>	<i>February 28th</i> Survey of the living primates <i>Chapter 6, p. 164-186</i>	<i>Week 5</i> Lab 4: Anthropometry
<i>March 5th</i> Primate comparative anatomy <i>Chapter 6, p. 158-162; Appendix B</i>	<i>March 7th</i> Primate behavioral ecology <i>Chapter 6, p. 162-164, 186-194</i> <i>Chapter 7, p. 197-205</i>	<i>Week 6</i> Lab 5: Comparative anatomy
<i>March 12th</i> EXAM I <i>Covers lecture material through 2/28 and material covered through Lab 4</i>	<i>March 14th</i> Primate societies <i>Chapter 7, p. 205-219</i>	<i>Week 7</i> Lab 6: Primate behavior I
<i>March 19th</i> SPRING RECESS – NO CLASSES SCHEDULED	<i>March 21st</i> SPRING RECESS – NO CLASSES SCHEDULED	<i>Week 8</i> NO LAB
<i>March 26th</i> Geological timescale & dating methods <i>Chapter 8; Chapter 9, p. 277-282</i>	<i>March 28th</i> Origin & evolution of early primates <i>Chapter 9, p. 255-264</i>	<i>Week 9</i> Lab 7: Primate behavior II
<i>April 2nd</i> Evolution of anthropoids <i>Chapter 9, p. 264-271</i>	<i>April 4th</i> Miocene hominoid evolution <i>Chapter 9, p. 271-277</i>	<i>Week 10</i> Lab 8: Cladistics
<i>April 9th</i> Bipedalism & the ape to hominin transition <i>Chapter 10</i>	<i>April 11th</i> AAPA meetings – NO CLASS	<i>Week 11</i> NO LAB

<p><i>April 16th</i> The earliest hominins & origin of <i>Australopithecus</i> <i>Chapter 11, p. 307-324</i></p>	<p><i>April 18th</i> <i>Australopithecus</i> & <i>Paranthropus</i> <i>Chapter 11, p. 324-337</i></p>	<p>Week 12 Lab 9: Anatomy of bipedalism</p>
<p><i>April 23rd</i> The origin of the genus <i>Homo</i> <i>Chapter 12, p. 341-355</i></p>	<p><i>April 25th</i> <u>EXAM II</u> <i>Covers lecture material through 4/9 and material covered through Lab 9</i></p>	<p>Week 13 Lab 10: Human fossil record I</p>
<p><i>April 30th</i> <i>Homo erectus</i> & dispersal from Africa <i>Chapter 12, p. 355-375</i></p>	<p><i>May 2nd</i> <i>Homo heidelbergensis</i> & Neandertals <i>Chapter 13</i></p>	<p>Week 14 Lab 11: Human fossil record II</p>
<p><i>May 7th</i> Modern human origins & biogeography <i>Chapters 14</i></p>	<p><i>May 9th</i> OPTIONAL ALTERNATE FINAL <i>During regularly scheduled class</i></p>	<p>Week 15 Lab 12: Human fossil record III</p>
<p><i>May 14th</i> READING DAY – NO CLASSES SCHEDULED</p>	<p><i>Tuesday, May 21st, 2:00-3:50</i> FINAL EXAM <i>Comprehensive but focusing on lecture material from 4/16 and labs 10-12.</i></p>	<p>Week 16 NO LAB</p>