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: Blaszczk
006 W 3:30-4:45, AI: Blaszczk
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 Blaszczk (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:

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*):

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Exams</td>
<td>72</td>
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<tr>
<td>Lab reports/quizzes</td>
<td>28</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>100</td>
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### Schedule

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

<table>
<thead>
<tr>
<th>Tuesday</th>
<th>Thursday</th>
<th>Lab</th>
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</table>
| **January 29th**  
What is biological anthropology?  
Introduction | **January 31st**  
Origins of evolutionary thought  
Chapter 1; Chapter 4, p. 101-104 | **Week 1**  
NO LAB |
| **February 5th**  
Cellular & molecular biology  
Chapter 2 | **February 7th**  
Mendelism & the mechanism of inheritance  
Chapter 3 | **Week 2**  
Lab 1:  
The human skeleton |
| **February 12th**  
Evolutionary theory  
Chapter 4, p. 93-101, 110-114 Appendix C | **February 14th**  
Species & speciation  
Chapter 4, p. 105-110 | **Week 3**  
Lab 2:  
Forces of evolution & genetics |
| **February 19th**  
Population genetics & human adaptation  
Chapter 5, p. 127-152 | **February 21st**  
Modern human variation  
Chapter 5, p. 117-126 | **Week 4**  
Lab 3:  
Race |
| **February 26th**  
Our place in nature  
Chapter 6, p. 155-157 | **February 28th**  
Survey of the living primates  
Chapter 6, p. 164-186 | **Week 5**  
Lab 4:  
Anthropometry |
| **March 5th**  
Primate comparative anatomy  
Chapter 6, p. 158-162; Appendix B | **March 7th**  
Primate behavioral ecology  
Chapter 6, p. 162-164, 186-194  
Chapter 7, p. 197-205 | **Week 6**  
Lab 5:  
Comparative anatomy |
| **March 12th**  
EXAM 1  
Covers lecture material through 2/28 and material covered through Lab 4 | **March 14th**  
Primate societies  
Chapter 7, p. 205-219 | **Week 7**  
Lab 6:  
Primate behavior I |
| **March 19th**  
SPRING RECESS – NO CLASSES SCHEDULED | **March 21st**  
SPRING RECESS – NO CLASSES SCHEDULED | **Week 8**  
NO LAB |
| **March 26th**  
Geological timescale & dating methods  
Chapter 8; Chapter 9, p. 277-282 | **March 28th**  
Origin & evolution of early primates  
Chapter 9, p. 255-264 | **Week 9**  
Lab 7:  
Primate behavior II |
| **April 2nd**  
Evolution of anthropoids  
Chapter 9, p. 264-271 | **April 4th**  
Miocene hominoid evolution  
Chapter 9, p. 271-277 | **Week 10**  
Lab 8:  
Cladistics |
| **April 9th**  
Bipedalism & the ape to hominin transition  
Chapter 10 | **April 11th**  
AAPA meetings – NO CLASS | **Week 11**  
NO LAB |
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Chapter/Section</th>
<th>Week</th>
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<tbody>
<tr>
<td>April 16th</td>
<td>The earliest hominins &amp; origin of Australopithecus</td>
<td>Chapter 11, p. 307-324</td>
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<td>April 18th</td>
<td>Australopithecus &amp; Paranthropus</td>
<td>Chapter 11, p. 324-337</td>
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<td>April 23rd</td>
<td>The origin of the genus Homo</td>
<td>Chapter 12, p. 341-355</td>
<td>13</td>
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<td>April 25th</td>
<td>EXAM II</td>
<td>Covers lecture material through 4/9 and material covered through Lab 9</td>
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<td>April 30th</td>
<td>Homo erectus &amp; dispersal from Africa</td>
<td>Chapter 12, p. 355-375</td>
<td>14</td>
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<td>May 2nd</td>
<td>Homo heidelbergensis &amp; Neandertals</td>
<td>Chapter 13</td>
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<td>May 7th</td>
<td>Modern human origins &amp; biogeography</td>
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<td>May 9th</td>
<td>OPTIONAL ALTERNATE FINAL</td>
<td>During regularly scheduled class</td>
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<td>May 14th</td>
<td>READING DAY – NO CLASSES SCHEDULED</td>
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<td>May 21st</td>
<td>FINAL EXAM</td>
<td>Comprehensive but focusing on lecture material from 4/16 and labs 10-12.</td>
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Week 15
Lab 12: Human fossil record III