

**Human Evolution/Human Origins  
(ANT 4586/ANG 6514)**

**SPRING 2013**

**Time:** Tuesdays (Periods 2-3)  
Thursdays (Period 3)  
**Place:** 2336 Turlington Hall  
**Instructor:** Dr. John Krigbaum, Associate Professor  
office: 1350A Turlington Hall  
hours: Thursdays (10:30-12:30), or by appointment  
(Advising: Tuesdays 10:30-12:30 and Wednesdays 1:00-3:00)  
e-mail: krigbaum@ufl.edu  
tel: 352-294-7540

**Course Websites:** <http://lss.at.ufl.edu> (E-Learning in Sakai)

**Course Overview**

This course will review in considerable detail the evidence for the evolution of humankind. Such a subject of study is indeed diverse, but concerns mainly the hominin fossil and archaeological records and their interpretation. Basic principles of geology, systematics, evolutionary theory, functional morphology and genetics will be introduced and used to aid in understanding and interpreting the “hard” evidence of human evolution. We will step back in time, as paleoanthropologists, and learn about some of the fossil evidence for the evolution of Primates, with emphasis on the evolution of the Hominoidea and the origin and diversification of bipedal hominins. At about 2.5 million years ago, our genus *Homo* first appears in the fossil record. At about this same time the first evidence of culture (stone tools) appears in the archeological record. We will trace these major steps forward to the origins of modern humans (*Homo sapiens*) and then review the evidence for their spread and diversification throughout the Old and New Worlds.

Course content (lectures, labs, assigned reading) will be evaluated through in-class quizzes (N=6), in-class exams (N=3), lab exercises (N=6), three take home essays, and a group presentation. Graduate students enrolled will submit a 20 page, double-spaced paper on an approved topic.

**Student Learning Outcomes ‘SLOs’**

**Content**

- Identify, describe, explain, and apply factual, conceptual, and procedural knowledge in biological anthropology.

**Critical Thinking**

- Apply the scientific approach to investigate human variation in its biological, social and cultural dimensions.
- Integrate different sources and types of knowledge into holistic perspectives about human variation.

- Evaluate the significance, quality and veracity of information and apply it effectively to solve problems.

## **ATTENDANCE**

- Attendance is required and will be taken at every scheduled lecture.
- University Attendance Policies apply for both Lecture and Lab. Refer to the following: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

**Grading:** ALL material covered in this course is fair game for exams.

### **TAKE GOOD NOTES.**

- In class Exam (N=3) 300 points (3 - 100 point mid-term exams)
- In class Quiz (N=6) 50 points (lowest quiz grade will be dropped)
- Lab exercises (N=6) 60 points
- Group Research Project up to 25 'extra credit' points (added to Exam points)
- Take Home essays (N=3) 90 points (3 – 30 point essays)

Strict percentile breakdown: 93.50-100 = A; 90-93.49 = A-; 86.5-89.99 = B+; 83.5-86.49 = B; 80-83.49 = B-; 76.5-79.99 = C+; 73.5-76.49 = C; 70-73.49 = C-; 66.5-69.99 = D+; 63.5-66.49 = D; 60-63.49 = D-; <59.99 = E.

## **MAKE-UP Quizzes/Exams:**

Make-up quizzes/exams will not be scheduled unless demonstrated illness, serious emergency, or major scheduling conflict with proof provided to the Instructor. An official letter, following university procedures, is expected prior to the exam date so that a make-up exam can be arranged.

## **Student Conduct**

- Students should behave in accordance to the University of Florida's student conduct code: <http://www.dso.ufl.edu/sccr/honorcodes/conductcode.php>
- NO PHOTOGRAPHY/RECORDING OF ANY KIND DURING LECTURE (without permission)
- PLEASE TURN OFF CELL PHONES IN CLASS (i.e., no texting)
- LAPTOPS ARE FOR NOTETAKING ONLY. PLEASE DO NOT FACEBOOK/EMAIL.

## **Accommodation**

Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. The Disability Resource Center is located in Reid Hall, Room 001. For more information, please refer to the following link: <http://www.dso.ufl.edu/drc/>

Accommodation must be requested in the first two weeks of class by January 18, 2013.

## **Academic Honesty and Integrity**

All students must comply to the University of Florida's Student Honor Code:

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied:

"On my honor, I have neither given nor received unauthorized aid in doing this assignment."

(1) All students are required to abide by the Student Honor Code.

(2) The conduct set forth hereinafter constitutes a violation of the Student Conduct Code. Those adjudged to have committed such conduct shall be subject to the sanctions provided in Rule 6C1-4.016, F.A.C.

For more information, please refer to the following link: <http://www.dso.ufl.edu/sccr/honorcode.php>

### **Required:**

- Textbook: Conroy, G.C. and Pontzer, H. 2012. *Reconstructing Human Origins: A Modern Synthesis*, 3<sup>rd</sup> edition. New York: Norton.
- Reader, J. 2011. *Missing Links: In Search of Human Origins*, 2<sup>nd</sup> edition. New York: Oxford University Press.

### **Recommended:**

- Johanson, D. & Edgar, B. 2006. *From Lucy to Language*. Revised, updated, and expanded edition. New York: Simon & Schuster.
- Stringer, C. & Andrews, P. (2005). *The Complete World of Human Evolution*. London: Thames & Hudson.

### **Course Reserve (Smathers Library West)**

- Fleagle, J.G. 1999. *Primate Adaptation and Evolution*. 2<sup>nd</sup> edition. San Diego, CA: Academic Press.
- Hartwig, W.C. (Ed.) 2002. *The Primate Fossil Record*. Cambridge: Cambridge University Press.
- Jones, S., Martin, R., and Pilbeam, D. (Eds.) 1992. *The Cambridge Encyclopedia of Human Evolution*. Cambridge: Cambridge University Press.
- Tattersall, I. and Schwartz, J. 2000. *Extinct Humans*. Boulder, CO: Westview Press.

### **3<sup>rd</sup> Floor Reference (Smathers Library West)**

- Delson, E., Tattersall, I., Van Couvering, J.A., and Brooks, A.S. (Eds.) 2000. *The Encyclopedia of Human Evolution and Prehistory*, 2<sup>nd</sup> edition. New York: Garland. GN281.E53 1999 [In-Library Use]

| Date                              |        | Lecture                                 | Reading  |         | Labs & Assessments                                |
|-----------------------------------|--------|---|--|---------|---|
|                                   |        |   | Readings and on-line resources will be made available via Sakai on a weekly basis. |         | Labs will be made available to students in class. |
|                                   |        |   | Conroy & Pontzer   | Reader  |   |
| <b>I. Introduction</b>            |        |   |  |         |   |
| T                                 | 8-Jan  | Introduction                            |  |         |   |
| R                                 | 10-Jan | The Primates                            | 1  | 1       |   |
| <b>II. Bones and Rocks</b>        |        |   |  |         |   |
| T                                 | 15-Jan | Primate Comparative Anatomy             |  | 2       | LAB 1: Primate Morphology                         |
| R                                 | 17-Jan | Geological Context                      | 2 & 3  |         |   |
| <b>III. Evolutionary 'Tools'</b>  |        |   |  |         |   |
| T                                 | 22-Jan | Phylogeny, Paleobiology, & Paleoecology | 4  | 3       | <b>Quiz 1</b>                                     |
| R                                 | 24-Jan | Diverse Approaches to the Past          |  |         |   |
| <b>IV. The Miocene</b>            |        |   |  |         |   |
| T                                 | 29-Jan | Miocene Hominoids                       | 5  |         | LAB 2: Geology & Hominoids<br>Take Home Essay #1  |
| R                                 | 31-Jan | Hominoid Phylogeny                      |  | 16      |   |
| <b>V. Late Miocene &amp; Exam</b> |        |   |  |         |   |
| T                                 | 5-Feb  | Hominin Origins & Review                |  | 15 & 16 | #1 Due. <b>Quiz 2</b><br><b>EXAM I</b>            |
| R                                 | 7-Feb  | <b>EXAM I</b>                           |  |         |   |
| <b>VI. Pliocene</b>               |        |   |  |         |   |
| T                                 | 12-Feb | South African Australopiths             | 6  | 7 & 8   | LAB 3: Australopiths                              |
| R                                 | 14-Feb | East African Australopiths              | 7  | 10      |   |
| <b>VII. More Pliocene</b>         |        |   |  |         |   |
| T                                 | 19-Feb | Early Hominin Paleobiology & Phylogeny  | 8  | 11      | <b>Quiz 3</b><br>Take Home Essay #2               |
| R                                 | 21-Feb | Early Hominin Paleoecology              |  |         |   |
| <b>VIII. Early <i>Homo</i></b>    |        |   |  |         |   |
| T                                 | 26-Feb | Early <i>Homo</i>                       | 9  | 12 & 13 | #2 due. LAB 4: early <i>Homo</i>                  |

|  | <b>Date</b> | <b>Lecture</b>                                      | <b>Reading</b>   |               | <b>Labs &amp; Assessments</b>                     |
|--|-------------|---|--|---------------|---|
|  |             |   | Readings and on-line resources will be made available via Sakai on a weekly basis. |               | Labs will be made available to students in class. |
|  |             |   | <b>Conroy &amp; Pontzer</b>  | <b>Reader</b> |   |
| R  | 28-Feb      | Early <i>Homo</i> Archaeology                       |  | 14            |   |
|  | 2-9-Mar     | Spring Break  |  |               |   |
| <b>IX. More Early <i>Homo</i> &amp; Exam</b>   |             |   |  |               |   |
| T  | 12-Mar      | Early <i>Homo</i> Paleobiology & Phylogeny & Review |  |               | <b>Quiz 4</b>                                     |
| R  | 14-Mar      | <b>EXAM II</b>                                      |  |               | <b>EXAM II</b>                                    |
| <b>X. Hominin Origins</b>                      |             |   |  |               |   |
| T  | 19-Mar      | <i>Homo erectus</i> & <i>Homo ergaster</i>          | 10   | 6 & 9         | LAB 5: <i>Homo erectus</i>                        |
| R  | 21-Mar      | <i>Homo erectus</i> Archaeology                     |  |               |   |
| <b>XI. Australopiths and early <i>Homo</i></b> |             |   |  |               |   |
| T  | 26-Mar      | Transitional Hominins I                             | 11   |               | <b>Quiz 5</b>                                     |
| R  | 28-Mar      | Transitional Hominins II                            |  |               |   |
| <b>XII. Out of Africa</b>                      |             |   |  |               |   |
| T  | 2-Apr       | Origin of Modern Humans                             | 12   | 4 & 5         |   |
| R  | 4-Apr       | Molecules etc.                                      |  |               |   |

| Date                                       | Lecture | Reading  | Labs & Assessments                                |
|--|---------|--|---|
|  |         | Readings and on-line resources will be made available via Sakai on a weekly basis. | Labs will be made available to students in class. |
|  |         | <b>Conroy &amp; Pontzer</b> <b>Reader</b>  |   |
| <b>XIII. <i>Homo sapiens</i></b>           |         |  |   |
| T  | 9-Apr   | Fossil Evidence for early <i>Homo sapiens</i>                                      | LAB 6: Transitional & Moderns                     |
| R  | 11-Apr  | Archaeology of <i>Homo sapiens</i>   | <b>Quiz 6</b>                                     |
| <b>XIV. Group Presentations &amp; Exam</b> |         |  |   |
| T  | 16-Apr  | Group Presentations & Review   | <b>EXAM III</b>                                   |
| R  | 18-Apr  | <b>EXAM III</b>  | Take Home Essay #3                                |
| <b>XV. Closer</b>                          |         |  |   |
| T  | 23-Apr  | Group Presentations  | #3 due.   |