

# Human Evolution

## ANT 4586

Spring 2018

**Instructor:** Dr. John Krigbaum, Associate Professor  
1350A Turlington Hall  
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tel: (352) 294-7540  
office hours: Thursdays 8:00-10:00am, or by appointment  
(UG Advising: Wednesdays 1:00-3:00; Thursdays 10:00-12:00)

**Lecture:** 202 Williamson Hall (Geological Sciences) and B304 Turlington Hall  
Tuesdays 3:00-4:55pm (Periods 8-9) and Thursdays 4:05-4:55pm (Period 9)

**Course Website:** Canvas. <http://elearning.ufl.edu>

### 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.

### Student Learning Outcomes ‘SLOs’

#### Content

- Identify, describe, explain, and apply factual, conceptual, and procedural knowledge in biological anthropology as it pertains to the evidence for human evolution.

#### Critical Thinking

- Apply the scientific approach to investigate primate, specifically hominid, variation in its biological, social and cultural dimensions.
- Integrate different sources and types of knowledge into holistic perspectives about human variation and human evolution.
- Evaluate the significance, quality and veracity of information and apply it effectively to solve problems.

#### Communication

- Develop public speaking skills, website skills, and writing skills based on distilling information from peer-reviewed literature.

### **ATTENDANCE**

Attendance is required and will be taken at every scheduled meeting. You are allowed two unexcused 'misses' and after that each miss will be

- 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.

Course content (lectures, labs, assigned reading) will be evaluated through in class quizzes (N=7), in-class exams (N=2), labs and lab exercises that will include a take home assignment (N=6), and a website/final paper. 1000 points total.

Exams (N=2) = 400 points (2 - 100 pt mid-terms, 1 - 200 pt Final)

Quizzes (N=7) = 150 points (25 pts each, lowest quiz dropped)

Labs/Takehome (N=5) = 125 points

Attendance = 75 points (3 pts off each unexcused absence, two 'freebies')

Hominin Log = 100 points (10 pts each, annotated notes of key readings)

Website Paper Project (N=3) 150 points

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)

TAKE GOOD NOTES USING NOTEPAD AND PAPER. LAPTOPS SHOULD NOT BE USED DURING LECTURE, UNLESS FOR SCHEDULED ON-LINE ACTIVITIES.

### **Accommodation**

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be

presented to the instructor when requesting accommodations. Students with disabilities should follow this procedure as early as possible in the semester.

Ideally, student accommodation should be communicated to the Instructor within the first two weeks of class (by January 25, 2018). 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/>.

### **Academic Honesty and Integrity**

All students must comply with the University of Florida's Student Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>):

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. 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."

The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel.

### **Required Textbooks:**

Stringer, C. & Andrews, P. 2011. *The Complete World of Human Evolution*, 2<sup>nd</sup> edition. London: Thames & Hudson

Reader, J. 2011. *Missing Links: In Search of Human Origins*. Oxford: Oxford University Press.

\*Jurmain, R., Kilgore, L., Trevathan, W., Ciochon, R.L., & Bartelink, E.J. 2018. *Introduction to Physical Anthropology*, 15<sup>th</sup> Edition. Belmont, CA: Wadsworth. OR you may use the 2013-2014 Edition of this textbook.

\*DO NOT PURCHASE ... but use your copy if you have one and let me know if you do not.

### **Recommended:**

Johanson, D. & Edgar, B. 2006. *From Lucy to Language*. Revised, updated, and expanded edition. New York: Simon & Schuster.

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

- Fleagle, J.G. 2013. *Primate Adaptation and Evolution*. 3<sup>rd</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]

<b>week</b>	<b>date</b>	<b>topic</b>	<b>Room</b>
1	9-Jan	Introduction: Human Evolution and the Primates (a Review)	202 Williamson Hall
	11-Jan	Paleoanthropology basics	202
2	16-Jan	Primate Comparative Anatomy	B304 Turlington Hall
	18-Jan	Geological Context is Key	202
3	23-Jan	Miocene Hominoids	B304
	25-Jan	Hominoid Phylogeny and Paleobiology	202
4	30-Jan	Hominin Origins	B304
	1-Feb	Earliest Hominins	202
5	6-Feb	Australopiths	B304
	8-Feb	Australopiths	202
6	13-Feb	Australopiths	B304
	15-Feb	Genus <i>Homo</i>	202
7	20-Feb	Guest Lecture: Prof. Daegling (robust australopiths)	202
	22-Feb	Genus <i>Homo</i>	202
8	27-Feb	Exam 1	202
	1-Mar	<i>Homo erectus</i>	202
<b>SPRING BREAK</b>			
9	13-Mar	<i>Homo erectus</i> and transitional hominins	B304
	15-Mar	Transitional Hominins incl. Neanderthals	202
10	20-Mar	Transitional hominins	202
	22-Mar	Guest Lecture: Prof. Mulligan (aDNA and hominin evolution)	202
11	27-Mar	Evidence for early <i>Homo sapiens</i>	B304
	29-Mar	Archaeology of Modern <i>Homo sapiens</i>	202
12	3-Apr	Modern Human Dispersals	202
	5-Apr	New Worlds	202
13	10-Apr	student presentations	202
	12-Apr	student presentations	202
14	17-Apr	student presentations	202
	19-Apr	student presentations	202
15	24-Apr	Exam 2	202

LAB 1

LAB 2

LAB 3

LAB 4

LAB 5