Natural Science II: Human Origins - MAP UA 0305
New York University
4/26/12 Update

Instructor: Prof. Todd Disotell — email todd.disotell@nyu.edu — Office Hours (25 Waverly Place) Mon 10-12, Rm 401

TAs: Ashley Bales adb353@nyu.edu
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Lecture (Silver 207) Tue/Thu 9:30 - 10:45

Labs (25 Waverly Place, Rm 204)

002	Tue	1:00 - 2:40 (AB)	005	Wed	11:00 - 12:40 (EM)
003	Tue	3:00 - 4:40 (AB)	006	Wed	1:00 - 2:40 (LP)
004	Wed	9:00 - 10:40 (EM)	007	Wed	3:00 - 4:40 (LP)

Required Text:

Stanford C, Allen JS, Antón SC. 2010. Exploring BIological Anthropology: The Essentials (Second Edition)

Additional required readings will be posted periodically on Blackboard.

Laboratory Sections:
There are 12 required laboratory sessions that will cover material in greater detail than the lectures permit. Attendance is mandatory. The will be no make-up labs or quizzes or assignment deadline extensions. If you miss a lab or class, it is imperative that you make contact with your TA at the earliest opportunity to find out what you missed. You should attend labs fully prepared. You should have completed all of the readings and familiarize yourself with the material to be covered. Each lab will have a quiz or written assignment associated with it. Assignments are due promptly at the beginning of the following laboratory section.

Course Requirements:
Attendence: It is important that you attend lectures. Much of the material is not fully covered in the readings or labs. Any subject covered in lecture, labs, or any of the readings may be covered on the midterm and final. **It is our experience that students who do not attend lectures receive significantly lower grades**.

Courtesy: Do not disturb the class! We expect you to be punctual. Cell phones must be turned off prior to class. A ringing cell phone or obvious texting or web surfing will result in a reduced course grade!

Grading: Lab assignments (50%), Midterm (20%), Final (30%)

Course Description:
This course introduces the basic concepts and data used to study human and our close relatives' evolutionary history. We will utilize genetics, evolutionary theory, systematics, geology, climatology, paleontology, primate behavior and ecology, and forensic anthropology to reconstruct our history. We will treat humans as any other primate and analyze each phase and stage of our history using these scientific tools.

Course Goals and Objectives:
The main goal of this course is to provide you with an understanding the how the scientific method is applied to better understand our evolutionary history. Organizing the different data sources used to study human evolution using theoretical and practical insights is far more important than remembering the minutia. Hopefully you will see how basic evolutionary concepts and knowledge of our evolutionary history are and can be applied to everyday life.

SYLLABUS

1:	Tue, Jan 24	Introduction and course mechanics	Stanford et al. Ch. 1
2:	Thu, Jan 26	Our Place in Nature	Stanford et al. Ch. 7, pp. 136-146
		No labs week 1	
3:	Tue, Jan 31	Living Primates	Stanford et al. Ch. 7, pp. 147-174 *Disotell 2008a*
4:	Thu, Feb 2	Primate Social Organization	Stanford et al. Ch. 8, pp. 175-183
		Lab 1: Orientation and Introduction to Skeletal Biology	
5:	Tue, Feb 7	Primate Behavior	Stanford et al. Ch. 8, pp. 183-195
6:	Thu, Feb 9	Fossils	Stanford et al. Ch. 9, pp. 196-217
		Lab 2: Comparative anatomy	
7:	Tue, Feb 14	Primate Evolution	Stanford et al. Ch. 9, pp. 217-235 *Stewart & Disotell 1998*
8:	Thu, Feb 16	Development of Evolutionary Theory	Stanford et al. Ch. 2
		Lab 3: Primate behavior	
	Tue, Feb 21	Genetics	Stanford et al. Ch. 3
9:	Thu, Feb 23	Population Genetics	Stanford et al. Ch. 4
		Lab 4: Anthropometry	
10:	Tue, Feb 28	Genomics	
11:	Thu, Mar 1	The Human Genome	Pollard 2009
		Lab 5: Population Genetics	
12:	Tue, Mar 6	Overview	*Midterm Review Guide*
13:	Thu, Mar 8	MIDTERM EXAM	
	Tue, Mar 13	SPRING BREAK	
	Thu, Mar 15	SPRING BREAK	
14:	Tue, Mar 20	Evolution and Disease	Stanford et al. Ch. 15 *Nesse & Williams 1998*
15:	Thu, Mar 22	Macroevolution	Stanford et al. Ch. 5
		Lab 6: Race	
16:	Tue, Mar 27	Reconstructing Evolution	*Stewart 1993*
17:	Thu, Mar 29	The earliest hominins	Stanford et al. Ch. 10, pp. 236-251
		Lab 7: Phylogenetics	
18:	Tue, Apr 3	*Australopithecus* and its allies	Stanford et al. Ch. 10, pp. 251-270
19:	Thu, Apr 5	early *Homo*	Stanford et al. Ch. 11, pp. 271-277
		Lab 8: Bipedalism	
20:	Tue, Apr 10	*Homo erectus*	Stanford et al. Ch. 11, pp. 277-298
	Thu, Apr 12	“achaic” *Homo*	Stanford et al. Ch. 12, pp. 299-309

21: Tue, Apr 17	The Neanderthals	Stanford et al. Ch. 12, pp. 309-328
22: Thu, Apr 19	Anatomically modern humans	Stanford et al. Ch. 15, pp. 329-346
	Lab 9: Early hominins	
23: Tue, Apr 24	Genetic evidence for human evolution	Stanford et al. Ch. 15, pp. 346-256
24: Thu, Apr 26	Overview of human evolution	*Disotell 2000* *Disotell 2008b*
	Lab 10: Early *Homo*	
25: Tue, May 1	Modern human variation	Stanford et al. Ch. 6
26: Thu, May 3	Wrap up and review	
	Lab 11: Archaic and modern *Homo*	

FINAL EXAM - Tue, May 15, **8:00 A.M.**