

**BIOLOGICAL ANTHROPOLOGY – ANT 102 <sup>1</sup>**  
**Southern Connecticut State University, Fall 2017**  
**TUE-THU 6:15 PM – 7:30 PM**

**Instructor:** Siavash Samei

**Classroom:** EN C013

**Office:** EN C027D

**Office Hours:** Tuesdays and Thursdays 5:00–6:00pm, or by appointment

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## **I. COURSE OVERVIEW**

In this class, students learn about humans and our place in the animal kingdom. Lessons include human origins and the human fossil record, with an emphasis on mechanisms of evolution. Students also consider human variation from an evolutionary perspective and biological variability among modern populations. By the end of the course students should be able to:

- Know the history of evolutionary thought and its major scholars
- Demonstrate understanding of the fundamental mechanisms of evolutionary change such as natural selection, sexual selection, gene flow, and mutation
- Describe the research methods used to study human evolution and the fossil record
- Understand the general trajectory of human evolution from our last common ancestor with chimpanzees to the appearance of anatomically modern humans
- Identify, describe, and compare major finds in the primate and hominin fossil record
- Identify physiological and behavioral traits of major primates and hominins
- Demonstrate understanding of the major questions and debates on the evolution of bipedalism and locomotion, language and thought, first stone tools and their makers, the definition of the genus *Homo*, timing of the appearance of symbolic behavior, human expansion out of Africa, and human-Neanderthal interactions

## **II. REQUIRED TEXTS**

Sanford, C., Allen, J.S., and S.C. Anton. 2016. *Exploring Biological Anthropology: The Essentials*. 4<sup>th</sup> Ed. Pearson, London.

Required lab documents will be available to you online.

## **III. COURSE ORGANIZATION**

The course is divided into two parts. In the first part you will become acquainted with the principles of evolution, biological inheritance, human population biology, and geology. In this part, we will also examine the anatomy and behavior of our closest relatives, the primates, and the fossils of early apes. In the second, part we will examine the fossil and archaeological record in more detail, looking at the physical remains of our hominin ancestors, their behaviors, and their environments.

### **— Reading**

Those students from whom this course is their first encounter with the subject matter may struggle with comprehension of the material, especially at the beginning of the semester. The textbook is an excellent resource for you! Finish the assigned readings before you come to class. Class discussions are an important part of the course and please take advantage of class time to get concepts clarified.

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<sup>1</sup> Adapted from a syllabus designed by previous colleagues, including Dave Leslie and Nick Blegen.

— **Learning the Fossils and Artifacts**

Starting on Week 7, when we begin discussing Miocene Apes and our hominin ancestors, the lectures will be complemented with a detailed study of important fossil finds and the first stone tools associated with various hominin species. In this class you will have the opportunity to handle cast replicas of ape and hominin skulls and tool replicas of Oldowan, Mousterian, Acheulian, Middle Stone Age, and Clovis technologies; and study the most significant differences between various skulls and stone tool types and their implications for the evolution of hominid mobility, culture, and social and economic adaptations.

— **Quizzes**

There will be quizzes interspersed throughout the semester. These non-cumulative quizzes are meant to ensure that you stay current with the course material, so you are prepared for the midterm and final exams. I will drop the lowest quiz grade in the calculation of your grade. Quizzes will be administered at the beginning of class, and should not take more than 10 minutes to complete.

— **Assessments**

There are two non-cumulative assessments based on assigned readings, in-class documentaries, lectures, and discussions of the fossil remains and artifacts. To be successful, you must complete the readings, watch the documentaries, and come to class for the lectures. These assessments will contain a combination of short answer, fill-in-the-blank, and multiple-choice questions.

**IV. GRADING**

Assessment 1	20%	<u>Participation</u>	25%
Assessment 2	20%	Quizzes (5, each 5%)	25%

A = 93 – 100%    B = 83 – 86%    C = 73 – 77%    D = 59 – 66%  
 A- = 89 – 92%    B- = 79 – 83%    C- = 69 – 72%    F = below 59%  
 B+ = 87 – 89%    C+ = 77 – 78%    D+ = 67 – 69%

**V. COURSE POLICIES**

— **Attendance and Make-Ups**

You can make up work for two reasons: non-emergency and emergency. Non-emergency excuses include athletic competitions and school activities. Emergency excuses may include family issues, accident, or illness. Whenever appropriate, you should obtain documentation certifying the reason for your absence and contact me as soon as possible to discuss how to make up your work.

— **Participation and Note Taking**

You can earn participation credit by coming to class on time, by answering questions asked of you in class, and by participating in in-class activities and discussions based on the documentaries. You will be exposed to a lot of new information in this course, including material not covered in your textbooks. Take detailed notes during class. You can download the supplemental materials that I have provided on the course website to help in your note taking efforts.

— **Academic Integrity**

Anyone caught cheating/ plagiarizing will be reported to the Chair of the Anthropology Department, the Dean of the College of Arts and Sciences, your dean, and the Office of Student Life, and you will receive an F for the course. For complete information on ethics and academic integrity please see: <http://www.southernct.edu/ils/currentstudents/ilspolicies/>

— **Students with Disabilities**

I encourage students who think they may need accommodations because of a disability to meet with me privately and confidentially early in the semester. Students should also contact the Center for Students with Disabilities as soon as possible to verify their eligibility for reasonable accommodations.

**VI. COURSE SCHEDULE**

**Week 1**

- 1/17 Course overview, syllabus, expectations, and required texts  
1/19 Biological anthropology & the scientific method  
*Stanford et al. Ch. 1*

**Week 2**

- 1/24 Historical perspectives on evolution  
*Stanford et al. Ch. 2*  
1/26 Principles of evolution  
*Stanford et al. Ch. 5*

**Week 3**

- 1/31 Natural, sexual, and artificial selection  
*Stanford et al. Ch. 5*  
2/2 Cells, genes, Mendel and heritability  
*Stanford et al. Ch. 3* **QUIZ 1**

**Week 4**

- 2/7 Forces of evolution and population genetics  
*Stanford et al. Ch. 4*  
2/9 Human population variation and race  
*Stanford et al. Ch. 6*

**Week 5**

- 2/14 The living primates: behavior, locomotion and models for human evolution (Part I)  
*Stanford et al. Ch. 7*  
21/16 The living primates: behavior, locomotion and models for human evolution (Part II)  
*Stanford et al. Ch. 8* **QUIZ 2**

**Week 6**

- 2/21 Paleoanthropology and Geology: what are fossils?  
*Stanford et al. Ch. 9*  
2/23 Stratigraphy and Dating techniques.  
*Stanford et al. Ch. 9*

**Week 7**

- 2/28 Origin of the Order Primates and Miocene Apes (Part I)  
*Stanford et al. Ch. 9*  
3/2 Origin of the Order Primates and Miocene Apes (Part II)  
*Stanford et al. Ch. 9* **QUIZ 3**

**Week 8**

- 3/7 Midterm Exam Review  
3/9 **MIDTERM EXAM**

**Week 9**      **NO CLASS: Spring Break**

**Week 10**

- 3/21    The anatomy of bipedalism  
          *Stanford et al. Ch. 10*
- 3/23    Bipedalism and the earliest hominins: *Sabelanthropus* and *Orrorin*  
          *Stanford et al. Ch. 10*

**Week 11**

- 3/28    *Australopithecus anamensis* and *afarensis* (anagenesis or cladogenesis)  
          *Stanford et al. Ch. 10*
- 3/30    *Ardipithecus ramidus*: the Last Common Ancestor?  
          *Stanford et al. Ch. 10*      **QUIZ 4**

**Week 12**

- 4/4     East Africa at 2.5 million: Stones, bone species & mysteries...  
          *Stanford et al. Ch. 10*
- 4/6     Southern Comfort: The Caves of the cape: *A. africanus* and *A. sediba*, and *Paranthropus*  
          *Stanford et al. Ch. 10*

**Week 13**

- 4/11    What defined the genus *Homo*: *H. habilis* and *H. rudolfensis*  
          *Stanford et al. Ch. 11*
- 4/13    Genesis of our genus: Early African *Homo erectus* (a.k.a *H. ergaster*)  
          *Stanford et al. Ch. 11*      **QUIZ 5**

**Week 14**

- 4/18    Out of Africa I: *H. erectus* outside of Africa (Asia and Europe)  
          *Stanford et al. Ch. 11*
- 4/20    Middle–Late Pleistocene hominins outside of Africa: *H. heidelbergensis*  
          *Stanford et al. Ch. 12*

**Week 15**

- 4/25    Middle–Late Pleistocene hominins outside of Africa: Neanderthals  
          *Stanford et al. Ch. 12*
- 4/27    Biological origin of modern humans in Africa  
          *Stanford et al. Ch. 13*      **QUIZ 6**

**Week 16**

- 5/2     Out of Africa II: *H. sapiens* into Eurasia and the Americas  
          *Stanford et al. Ch. 13*
- 5/4     Final Exam Review

**Week 17**      **FINAL EXAM**, date and time TBA