

ANBI 111: Human Evolution Spring Quarter 2023

Class meetings: Tu/Th 2-3:20 PM

HSS 2150

Instructor:

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Office Hours: W 1-3 PM and by appointment; SSB 287

Teaching Assistant:

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Office Hours: Th 12-2 PM; MOMs in Muir

Course website: canvas.ucsd.edu. All readings, lecture outlines, and other class material will be posted on this site.

Course overview: This course examines evolutionary history of the human lineage based on the fossil record. The course material draws on three inter-related lines of evidence: (1) morphological characteristics of fossil hominin species; (2) archaeological remains and their implications for understanding behavioral adaptations of fossil hominins; and (3) environmental pressures acting on past hominins and their role in shaping adaptive complexes of the fossil species. The goal of this class is to gain an understanding of evolutionary theory as it gets applied to the study of the human fossil record and selective pressures shaping morphological and behavioral characteristics of our species.

Required course text:

Conroy, Glenn C. and Herman Pontzer. 2012. *Reconstructing Human Origins: a Modern Synthesis*. WW Norton. 3rd edition.

Additional readings, as specified in the syllabus, are available electronically on the course website.

The textbook is available for purchase at the UCSD bookstore. Second edition of the textbook can also be used, but please note that page numbers listed on the syllabus follow the content of the third edition. A copy of the textbook is held on reserves at Geisel Library, but note that the library has 2nd edition. **For anything related to this course, do NOT use Wikipedia!**

Course Requirements:

Midterm examination (20%)

Laboratory assignments (15% each; 45% total)

Final examination (35%)

To complete this course, you must satisfy all course requirements; i.e., you must take all exams and turn in all assignments. You are expected to complete assigned readings for the day of lecture.

Examinations:

There will be two **in-person examinations** in this course: one midterm exam and a final exam. The examinations will be designed to assess your grasp of the readings and lectures, so if you attend lectures and keep up with the readings, you can expect to do quite well on these assessments. Final examination will be cumulative, with an emphasis on the material covered since the midterm exam. Both exams are to be taken **in-person and during the time specified in the syllabus**. Exceptions to this policy will be granted in **extreme and exceptional** circumstances, in which case you need to notify me before the exam commences. Make-up exams will be given in a different format and include different content.

Laboratory assignments:

Laboratory assignments are meant to help you master the material discussed in the course by working directly with fossil replicas. Laboratory assignments are mandatory and will count for 45% toward your final grade. If you are unable to attend a laboratory meeting, please notify me and we will schedule a different time for you to complete the assignment.

Laboratory assignments will be posted on the course website. You can print out the assignments and turn in a hard copy or complete the assignment on your laptop/notebook and upload to Canvas. In either case, the completed laboratory assignment is due at the end of the class.

Academic Integrity:

All assignments submitted for this class are expected to represent your own work. Violations of academic integrity will be taken seriously and reported to the Academic Integrity Office. It is your responsibility to know and observe all of the UCSD rules concerning academic integrity and plagiarism. You should familiarize yourself with your responsibilities and rights under the UCSD Policy on Integrity of Scholarship: <https://senate.ucsd.edu/Operating-Procedures/Senate-Manual/Appendices/2>

Any student found to have committed a substantial violation of the University rules concerning academic integrity will fail the entire course and will be reported to the Academic Integrity Office for academic misconduct.

Policy on an Incomplete (I) Grade:

According to the UCSD policy, an Incomplete can be awarded only when student's work is of passing quality, but the class assignments could not be completed due to circumstances beyond the student's control. In other words, to be eligible for an Incomplete you must have completed all coursework except for the final exam. Further details on UCSD grading policy, including the Incomplete grade, can be found at: <https://www.ucsd.edu/catalog/front/AcadRegu.html>

Students with Disabilities:

Students requesting accommodations and services due to disability for this course need to provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD), prior to eligibility for requests. Receipt of AFAs in advance is necessary for appropriate planning for the provision of reasonable accommodations. For additional information, contact the Office for Students with Disabilities: 858.534.4382 (V), email: osd@ucsd.edu. OSD Website: <http://disabilities.ucsd.edu>.

Title IX Statement:

The Office for the Prevention of Harassment and Discrimination (OPHD) is the Title IX Office for UC San Diego and investigates reports of sexual harassment, sexual violence, dating and domestic violence and stalking. You may file a report online with the UC San Diego Office for the Prevention of Harassment and Discrimination (OPHD). For further information about OPHD, please visit <http://ophd.ucsd.edu/>. Or you may call OPHD at 858-534-8298.

Please note that University employees (including all faculty and teaching and research assistants), who are not confidential resources, are designated Responsible Employees. Responsible Employees are required to report any incidents of sexual violence or sexual harassment to OPHD. If you are not ready to file a report, but wish to receive confidential support and advocacy, please contact CARE at SARC: <http://students.ucsd.edu/sponsor/sarc/>. CARE at SARC provides violence prevention education for the entire UCSD campus and offers free and confidential services for students, staff and faculty impacted by sexual assault, relationship violence and stalking. Accessing resources at CARE at SARC will not constitute a report to the University.

Counseling and Psychological Services (CAPS): College life can be stressful, and it is normal to feel overwhelmed at times. UCSD has a staff of professionals who are available for confidential meetings to discuss any personal concerns you might have. Feel free to contact CAPS at any time to set up an appointment: <http://caps.ucsd.edu>

TENTATIVE SCHEDULE OF TOPICS:

Week 1

April 4: Introduction/ Course Nuts and Bolts

Conroy & Pontzer: Humans as Primates (Pp.2-23)

April 6: Introduction to the Study of Human Evolution

Conroy & Pontzer: Finding and Dating Fossil Hominins (Pp. 62-86) & Naming and Classifying Fossil Hominins (Pp. 89-111)

Week 2

April 11: Primate Evolution during the Miocene

Conroy & Pontzer: Before the Bipedes -- Human Antecedents among the Miocene Hominoids (pp. 112-153).

April 13: Australopiths 1: East African Fossil Record

Conroy & Pontzer: The Earliest Hominins (Part 2) -- The Australopiths of Eastern Africa (Pp. 204-255).

Week 3

April 18: Australopiths 2: South African Fossil Record

Conroy & Pontzer: The Earliest Hominins (Part 1) – The Australopiths of Southern Africa (pp. 156-2030)

April 20: Australopithecines & Hominin Diversity during the Pliocene
Conroy & Pontzer: *Australopith Paleobiology and Phylogeny* (pp. 256-311)

Week 4

April 25 & 27: Laboratory exercise 1

If you need to refresh your knowledge of the human skeleton, consult the following text (available on reserve in Geisel Library): Soluri, Elizabeth K. and Sabrina C. Agarwal: *Bones of the Skeleton In: Laboratory Manual and Workbook for Biological Anthropology: Engaging with Human Evolution*. W. W. Norton & Company. Pp. 123-149.

Week 5

May 2: Laboratory Exercise 1 (Cont'd)

May 4: Early Stone Age: Lomekwian, Oldowan, and Acheulean Industries and Early Members of the genus *Homo*
Conroy & Pontzer: *The Emergence of Culture and the Origin of the Genus *Homo** (pp. 334-375)

Week 6

May 9: *** MIDTERM EXAMINATION ***

Includes the material covered April 4-April 20 and Lab 1.

May 11: *Homo erectus* & Asian Fossil Record
Conroy & Pontzer: *Quo Vadis *Homo erectus*?* (pp. 376-447)

Week 7

May 16: 'Archaic' Hominins
Conroy & Pontzer: *Almost There – But Not Quite* (pp. 449-483)

May 18: Laboratory exercise 2

Week 8

May 23: Laboratory exercise 2 (Cont'd)

May 25: Late 'Archaic' Hominins: the Neanderthals
Cartmill, Matt and Fred H. Smith (2009). *Talking Apes – The Neanderthals*. In: *The Human Lineage*. Wiley-Blackwell. Pp. 337-413.

Week 9

May 30: Mousterian and Neanderthal Behavioral Adaptations
Churchill, Steven E. (2014) *Neanderthal Material Culture*. In: *Thin on the Ground: Neanderthal Biology, Archeology and Ecology*. Wiley. Pp. 41-69.

June 1: *Homo sapiens: Anatomical vs. Behavioral Modernity*

Cartmill, Matt and Fred H. Smith (2009). The Symbolic Ape – The Origin of Modern humans. In: *The Human Lineage*. Wiley-Blackwell. Pp. 413—416 and 458-479.

Week 10

June 6: Laboratory Exercise 3

June 8: *Homo sapiens: Anatomical vs. Behavioral Modernity (Cont'd)*

Conroy & Pontzer: What the Fossils Say about 'Modern' Human Origins – a Reality Check. (pp. 516-599)

***** FINAL EXAMINATION: Tuesday 06/13/2023 3:00-5:59 PM *****