ANT 4586C: Human Origins

Department of Anthropology, College of Science
3 Credit Hours

Instructor:	Dr. Sarah Freidline	**Term:**	Fall 2022
Office Location:	H. Phillips Hall 409I	**Class Modality:**	Face to Face Instruction (P)
Office Hours:	Monday 2:00-3:30 Howard Phillips Hall 409I or via Zoom	**Class Location & Meeting Time:**	LEC – BA1 122 Monday & Wednesday 9:30-10:20 LAB – MSB 149 Wednesday 10:30-12:00 **or** 12:30 – 2:00
Phone:	407-823-2124		
Email:	Sarah.Freidline@ucf.edu or Webcourses@UCF messaging		

GTA:	Stephanie Fuehr	**Office Hours:**	Wednesday 2:00 – 3:00 MSB 149
Email:	Webcourses@UCF messaging		

Welcome!
This undergraduate level course explores the fossil and archaeological evidence of human evolution.

University Course Catalog Description
The fossil evidence for human evolution from Miocene hominoids through *Australopithecus* and the earliest members of the genus *Homo*.

Course Prerequisites
ANT2511, sophomore standing, or permission of instructor.

Course Credits
3 Credit Hours

Course Overview

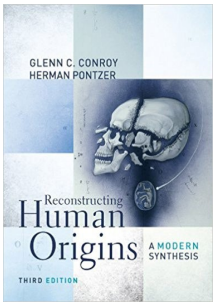
This course is designed to introduce students to 1) the fundamentals of evolutionary theory, 2) the application of this framework for our understanding of human evolutionary history, and 3) the human fossil record as evidence of this development. The course will begin by introducing students to evolutionary concepts, historical background, and modern articulation. We will explore the anatomical

and phylogenetic context of human evolution by discussing the origin and evolution of primates. Then we will explore the origins of the first hominids and their place in the human family tree. We will discuss origins of the genus *Homo*, the criteria used to differentiate these specimens, and the emergence of the modern human suite of anatomical and cultural characteristics. Lecture and lab are required components.

Required Reading

Conroy, G., & Pontzer, H. (2012). *Reconstructing Human Origins: a Modern Synthesis*. (3rd edition). New York: W.W. Norton & Company. ISBN: 978-0393912890.

***3rd edition required. Older versions are very outdated.**



Additional Required Readings

- Natural History Magazine Special Issue on Human Evolution (2018). Vol. 128. No. 8. This will be available as a .pdf on Webcourses.
- *Handbook of Paleoanthropology*. This will be available as a .pdf on Webcourses
- Students will also be required to read a selection of assigned articles that will be posted electronically on the Webcourses. Additional important websites or news reports will be linked to the Webcourses. Occasional films may be incorporated into lectures to highlight and illustrate different subjects.

Student Learning Outcomes

- Explain key components of the scientific method.
- Differentiate between hypotheses, theories, and laws.
- Define paleoanthropology and describe its key questions
- Demonstrate an understanding of the key theoretical concepts in human evolution.
- Identify and explain the keys events in human evolution and the biological and cultural significance of each.
- Explain the contributions of different lines of evidence including geology, molecular biology, skeletal anatomy, archaeological remains, and comparative nonhuman primate behavioral models.
- Identify key fossil specimens and their characteristics.
- Demonstrate ability to make quantitative and qualitative observations of fossil materials and use data comparatively to assess species identification and important morphological variation.
- Critically evaluate conflicting models of the origins of anatomically modern humans.

Course Activities

This course will include **face-to-face lectures and labs**, and readings that explore diverse aspects of human evolution. The course will include weekly reading and homework assignments, discussions, periodic review exams, and regular lab activities. Attendance is expected and will significantly improve student success. The broad variety of topics discussed in this course makes regular attendance critical in achieving an exemplary grade in this course as we will be gradually building up our knowledge week by week. **If you are ill and cannot attend face to face lectures, please notify me by email or Webcourses as soon as possible**.

Financial Aid Requirement
UCF must comply with a federal financial aid regulation that states that in order to receive federal aid, students must be actively academically engaged (according to a federal definition) in each course in which they are enrolled. Without verification of this engagement, students will not receive their aid. WebCourses@UCF will analyze all student activity to determine which students have met the federal standard, and that information will be sent to the Office of Student Financial Aid for processing. **Students must contribute to the "Beginning of Class" discussion board on WebCourses by 11:59 pm EST on Friday of the first week of class.** This discussion will be a way for me to gauge your current familiarity with the subject, as well as to let me know what you hope to gain from this class. Your post in this discussion board is your first Homework Assignment.

Assignment Details

1) Homework Assignments: Homework assignments will occur weekly and are designed to evaluate your understanding of the assigned reading from the textbook by Conroy & Pontzer. Each assignment will consist of multiple-choice questions, True/False statements, fill in the blank, definitions, and/or short answers, and will only cover the textbook chapter that was assigned for that week. These will help you come to class prepared having completed the reading. They will be available on WebCourses in the module for the week they are due, but they will be open one week prior to the due date and closed by **9:00 am EST Monday** morning. You are allowed to consult your textbook.

2) Discussion Assignments: Throughout the semester, you will be assigned reading material to discuss in class that relates to the weekly topic. You will need to prepare at least **3 questions** to ask your fellow students to stimulate discussion. You will **post your question on the Discussion board in WebCourses before the start of class**. **Students do not need to respond to the questions on WebCourses, unless otherwise indicated.** If we run out of time, discussion will take place on WebCourses. Your grade will reflect your participation (in class or on-line), and the questions that you prepared.

   These discussions require **student participation.**
   - Come prepared to discuss the assigned articles – read the material beforehand, take notes, bring any questions or comments as potential discussion material.
   - Speak up! Be ready and willing to answer open-ended discussion questions. All students must participate in all discussions.
   - Graded based on preparedness and ability to contribute to discussion.
   - **DO NOT** use discussions to personally attack classmates – it is ok to disagree with each other but do so in a polite and respectful way.

3) Lab Assignments: Labs take place during your assigned lab times, and materials will only be available during those times. Labs are to be handed either at the end of class, or one week later at the start of lab. Even though there are two lab sections, you must attend your assigned section.

Even though you are working in groups you are responsible for collecting the original data and writing your own interpretations.

4) Exams (3 non-cumulative exams): There will be three non-cumulative exams: two midterms and one final exam. These exams will take place in the classroom and are not open book. They will include multiple choice questions, True/False statements, fill in the blank, short answer, and short essay with questions based on lectures, all readings, and labs.

Activity Submission

Homework Assignments: Will be posted on WebCourses one week before they are due. They will need to be completed through WebCourses by **9:00 AM EST Monday** each week they are due.*

Discussion assignments: Questions need to be posted on the Discussion board on WebCourses by **9:00 AM EST** the day of the Discussion. Late discussion assignments will not be accepted without valid documentation (see below).*

Lab assignments: Need to be handed in by Wednesday the following week.*

Exams will be taken in class and submitted at the end of the allotted time.**

*Late assignments (homework and discussion) and labs will not be accepted without valid documentation (see below). I will accept late assignments and labs without documentation, but it will be penalized 1 letter grade per day it's late, and not accepted after 5 days late (excluding weekends). In this case, assignments will need to be emailed to me.

**Make-up exams are not allowed without valid documentation (see below).

Course Procedures and Policies

Contacting the professor: Outside of class our official mode of communication is through the email located inside Webcourses or through UCF email – sarah.freidline@ucf.edu. You can generally expect a response within 48 hrs. I may only check email once during the weekend. If you do not receive a response over the weekend, you can then expect a response Monday morning. All communication between student and instructor and between student and student should be respectful and professional. It is the student's responsibility to check the "course email" tool and announcements frequently.

WebCourses: ALL course materials and assignments can be accessed through the UCF on-line software, Webcourses@UCF. Additional readings may be assigned to supplement the textbook. You will be advised of any additional reading assignments on Webcourses. Please check Webcourses on a daily basis for announcements, updates, information on student resources, posted grades, and questions. You are expected to complete assignments on-time regardless of technological difficulties.

Attendance and participation: You should attend all lectures, complete all assignments, and take notes on lectures and reading material. Attendance is important for understanding course materials and to be successful in this course. Concepts covered in this course build on each other. If you miss a class, it could impair your ability to understand future topics. Make sure you obtain notes from a fellow classmate if you miss class. If you must miss class, please discuss planned absences with the instructor. For unplanned absences, please contact the instructor as soon as you are able.

Participation is an important component of this class and coming to class and LABS prepared each week by reading all assigned materials (chapters, lab handouts, and additional readings) allows you to do this effectively. Come prepared to discuss the assigned articles – read the material beforehand, take notes, bring any questions or comments as potential discussion material. Speak up! Be ready and willing to answer open-ended discussion questions. All students must participate in all discussions. Participation is graded based on preparedness and ability to contribute to discussion. While debate and differing opinions are encouraged in this class, remember that this is a professional setting: please be respectful and polite to your classmates.

Course etiquette:

- Be on time. If you are late entering the classroom or need to leave during class, please do so quietly with the least amount of disruption as possible.
- Cell phones will be turned off and put away during class. No texting. No messaging. No internet. This includes APPLE/smart watches and other electronic devices with internet or cloud connectivity.
- While computers/laptops may be used in class, they are for taking notes. Please refrain from surfing the web, checking your email, FaceBooking, or instant messaging as this is very distracting and disrespectful to your professor and those around. Remember, your classmates sitting behind you can see everything on your screen! If students are clearly disrupting the class or engaging in non-class related activities, this is grounds for disallowing the further use of the laptop in class by ANY students. Do not ruin everyone's learning experience.
- Be polite, please. This class will be conducted in a way that respects all aspects of diversity. It is expected that everyone show respect for one another and the diverse issues and topics that will be presented.
- Do NOT hesitate to ask questions, make comments, and bring in additional materials that relate to the topics we are covering in class during a given week – this is what makes the class interesting and engaging! If you hear about a relevant event or news story, let us know and we can post it on the course Webcourses and discuss it on the message board.
- Please note that we will not tolerate language and behavior in class that is offensive, hateful, abusive and/or exclusive in this class; this applies to written assignments and exams as well.

Deadline, late assignments, and make-ups: note that you must complete the course requirements according to the timeline provided in this document. Time management skills, problem solving skills, responsibility and personal accountability are among the most important things you can learn in university because they will serve you well both within and outside the classroom.

Late assignments (homework and discussion) and labs will not be accepted without a valid reason and documentation such as traffic ticket, police report, obituary, or doctor's note. I will accept late assignments and labs without documentation, but it will be penalized 1 letter grade per day it's late, and not accepted after 5 days late (excluding weekends). In this case, assignments will need to be emailed to me. Make-up exams are not allowed without valid documentation.

You are responsible for consulting the Academic Counseling Office in cases of illness, family emergency or other personal difficulties that constitute missing an exam. I must be notified as soon as possible about the absence or related emergency by telephone, e-mail, in person, or by leaving a message with the department staff (407-823-2227) prior to the assignment.

If you are participating in an official UCF event (e.g., sports events, field trips), please provide the proper documentation <u>prior</u> to the exam. Only those students who can provide a valid documented excuse to verify the reason for their absence will be allowed the opportunity to take a make-up exam. If you are provided the opportunity to take a make-up exam, it must be scheduled and written within one week of

the missed exam date and will take a different format from the original. No penalty will be applied. University activities and religious holidays (See UCF Policy 4.401.1 and Regulation 5.020) are included. You will be required to provide written documentation (email) of said circumstance. You will have one week to make up an assignment (written or lab) once you contact the professor after missing a deadline. For more information, see the UCF policy at <http://policies.ucf.edu/documents/4-401.2MakeUpAssignmentsorAuthUnivEventsorCocurricularActivities.pdf>.
Students must notify their instructor in advance if they intend to miss class for a religious observance. For more information, see the UCF policy at <http://regulations.ucf.edu/chapter5/documents/5.020ReligiousObservancesFINALJan19.pdf>. An alternative assignment or make up exam may be offered.

Grades of incomplete: the current university policy concerning incomplete grades will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent a student from completing the course and the remaining work can be completed the next semester. Your instructor is the final authority on whether you qualify for an incomplete. Incomplete work must be finished by the end of the subsequent semester or the "I" will automatically be recorded as an "F" on your transcript.

Grading

All efforts will be made to return graded materials to you within two weeks of their due date unless you are informed otherwise through a class-wide announcement. Grades will be posted under the WebCourses gradebook. Your final grade will be calculated based on the following activities:

Grade Category	Weight toward final grade
Discussion Assignments	20%
Homework Assignments	20%
Lab Assignments	20%
Exams (x3)	40%
Total	100%

Grading Scale
The following grading scale will be used in this course:

A	A-	B+	B	B-	C+	C	D+	D	D-	F
92.5-100%	90-92.4%	87.5-89.9%	82.5-87.4%	80-82.4%	77.5-79.9%	70-77.4%	67.5-69.9%	62.5-67.5%	60-62.4%	0-59.9%

UCF Policy Statements

Rules of Conduct Statement
Electronic devices must be turned off during class. This includes phones, radios, headphones, and any other gadgets you may have that may distract me or your classmates. Failure to comply may result in your removal from the class.

The point of working in the computer lab is to allow you to open R, handouts, and PDFs as needed. Please do not surf the internet or do things not related to this course during class time. Failure to comply may result in your removal from the class.

Unauthorized Use of Class Materials or Class Notes Statement
Course materials are the intellectual property of instructors, the university, or publishers and may not be distributed without prior authorization. Students who engage in such activity are in violation of academic conduct standards and may face penalties. I give you permission to download course handouts and PDFs and save them. I expect that these materials will be useful to you throughout the course and beyond.

Academic Integrity Statement
Students should familiarize themselves with UCF's Rules of Conduct at <http://osc.sdes.ucf.edu/process/roc>. According to Section 1, "Academic Misconduct," students are prohibited from engaging in:

1. Unauthorized assistance: Using or attempting to use unauthorized materials, information or study aids in any academic exercise unless specifically authorized by the instructor of record. The unauthorized possession of examination or course-related material also constitutes cheating.
2. Communication to another through written, visual, electronic, or oral means: The presentation of material which has not been studied or learned, but rather was obtained through someone else's efforts and used as part of an examination, course assignment, or project.
3. Commercial Use of Academic Material: Selling of course material to another person, student, and/or uploading course material to a third-party vendor without authorization or without the express written permission of the university and the instructor. Course materials include but are not limited to class notes, Instructor's PowerPoints, course syllabi, tests, quizzes, labs, instruction sheets, homework, study guides, handouts, etc.
4. Falsifying or misrepresenting the student's own academic work.
5. Plagiarism: Using or appropriating another's work without any indication of the source, thereby attempting to convey the impression that such work is the student's own.
6. Multiple Submissions: Submitting the same academic work for credit more than once without the express written permission of the instructor.
7. Helping another violate academic behavior standards.
8. Soliciting assistance with academic coursework and/or degree requirements.

For more information about Academic Integrity, students may consult The Center for Academic Integrity <https://academicintegrity.org/>. For more information about plagiarism and misuse of sources, see "Defining and Avoiding Plagiarism: The WPA Statement on Best Practices" <http://wpacouncil.org/node/9>.

Responses to Academic Dishonesty, Plagiarism, or Cheating
Students should also familiarize themselves with the procedures for academic misconduct in UCF's student handbook, *The Golden Rule* <https://goldenrule.sdes.ucf.edu/>. UCF faculty members have a responsibility for students' education and the value of a UCF degree, and so seek to prevent unethical behavior and respond to academic misconduct when necessary. Penalties for violating rules, policies, and instructions within this course can range from a zero on the exercise to an "F" letter grade in the course. In addition, an Academic Misconduct report could be filed with the Office of Student Conduct, which could lead to disciplinary warning, disciplinary probation, or deferred suspension or separation from the University through suspension, dismissal, or expulsion with the addition of a "Z" designation on one's transcript.
Being found in violation of academic conduct standards could result in a student having to disclose such behavior on a graduate school application, being removed from a leadership position within a student organization, the recipient of scholarships, participation in University activities such as study abroad, internships, etc.

Let's avoid all of this by demonstrating values of honesty, trust, and integrity. No grade is worth compromising your integrity and moving your moral compass. Stay true to doing the right thing: take the zero, not a shortcut.

Course Accessibility Statement
The University of Central Florida is committed to providing access and inclusion for all persons with disabilities. Students with disabilities who need access to course content due to course design limitations should contact the professor as soon as possible. Students should also connect with Student Accessibility Services (SAS) <http://sas.sdes.ucf.edu/> (Ferrell Commons 185, sas@ucf.edu, phone 407-823-2371). For students connected with SAS, a Course Accessibility Letter may be created and sent to professors, which informs faculty of potential course access and accommodations that might be necessary and reasonable. Determining reasonable access and accommodations requires consideration of the course design, course learning objectives and the individual academic and course barriers experienced by the student. Further conversation with SAS, faculty and the student may be warranted to ensure an accessible course experience.

Campus Safety Statement
Emergencies on campus are rare, but if one should arise during class, everyone needs to work together. Students should be aware of their surroundings and familiar with some basic safety and security concepts.

- In case of an emergency, dial 911 for assistance.
- Every UCF classroom contains an emergency procedure guide posted on a wall near the door. Students should make a note of the guide's physical location and review the online version at <http://emergency.ucf.edu/emergency_guide.html>.
- Students should know the evacuation routes from each of their classrooms and have a plan for finding safety in case of an emergency.
- If there is a medical emergency during class, students may need to access a first-aid kit or AED (Automated External Defibrillator). To learn where those are located, see <https://ehs.ucf.edu/automated-external-defibrillator-aed-locations>.
- To stay informed about emergency situations, students can sign up to receive UCF text alerts by going to <https://my.ucf.edu> and logging in. Click on "Student Self Service" located on the left side of the screen in the toolbar, scroll down to the blue "Personal Information" heading on the Student Center screen, click on "UCF Alert", fill out the information, including e-mail address, cell phone number, and cell phone provider, click "Apply" to save the changes, and then click "OK."
- Students with special needs related to emergency situations should speak with their instructors outside of class.
- To learn about how to manage an active-shooter situation on campus or elsewhere, consider viewing this video (<https://youtu.be/NIKYajEx4pk>).

Deployed Active Duty Military Students Statement
Students who are deployed active duty military and/or National Guard personnel and require accommodation should contact their instructors as soon as possible after the semester begins and/or after they receive notification of deployment to make related arrangements.

Make-Up Assignments for Authorized University Events or Co-Curricular Activities
Students who represent the university in an authorized event or activity (for example, student-athletes) and who are unable to meet a course deadline due to a conflict with that event must provide the instructor with documentation in advance to arrange a make-up. No penalty will be applied. For more information, see the UCF policy at: < https://policies.ucf.edu/documents/4-401.2MakeUpAssignmentsorAuthUnivEventsorCocurricularActivities.pdf)>

Religious Observances
Students must notify their instructor in advance if they intend to miss class for a religious observance. For more information, see the UCF policy at:
<https://regulations.ucf.edu/chapter5/documents/5.020ReligiousObservancesFINALJan19.pdf>.

Diversity and Inclusion
The University of Central Florida considers the diversity of its students, faculty, and staff to be a strength and critical to its educational mission. UCF expects every member of the university community to contribute to an inclusive and respectful culture for all in its classrooms, work environments, and at campus events. Dimensions of diversity can include sex, race, age, national origin, ethnicity, gender identity and expression, intellectual and physical ability, sexual orientation, income, faith and non-faith perspectives, socio-economic class, political ideology, education, primary language, family status, military experience, cognitive style, and communication style. The individual intersection of these experiences and characteristics must be valued in our community.
Title IX prohibits sex discrimination, including sexual misconduct, sexual violence, sexual harassment, and retaliation. If you or someone you know has been harassed or assaulted, you can find resources available to support the victim, including confidential resources and information concerning reporting options at https://letsbeclear.ucf.edu and http://cares.sdes.ucf.edu/.
If there are aspects of the design, instruction, and/or experiences within this course that result in barriers to your inclusion or accurate assessment of achievement, please notify the instructor as soon as possible and/or contact Student Accessibility Services.
For more information on diversity and inclusion, Title IX, accessibility, or UCF's complaint processes contact:

- Title IX – OIE – http://oie.ucf.edu/ & askanadvocate@ucf.edu
- Disability Accommodation – Student Accessibility Services – http://sas.sdes.ucf.edu/ & sas@ucf.edu
- Diversity and Inclusion Training and Events – www.diversity.ucf.edu
- Student Bias Grievances – Just Knights response team – http://jkrt.sdes.ucf.edu/
- UCF Compliance and Ethics Office – http://compliance.ucf.edu/ & complianceandethics@ucf.edu
- Ombuds Office – http://www.ombuds.ucf.edu

Unauthorized Use of Websites and Internet Resources
There are many websites claiming to offer study aids to students, but in using such websites, students could find themselves in violation of academic conduct guidelines. These websites include (but are not limited to) Quizlet, Course Hero, Chegg Study, and Clutch Prep. UCF does not endorse the use of these products in an unethical manner, which could lead to a violation of our University's Rules of Conduct. They encourage students to upload course materials, such as test questions, individual assignments, and examples of graded material. Such materials are the intellectual property of instructors, the university, or publishers and may not be distributed without prior authorization. Students who engage in such activity could be found in violation of academic conduct standards and could face course and/or University penalties. Please let me know if you are uncertain about the use of a website so I can determine its legitimacy.

Course Schedule and Assignments

Disclaimer: every effort has been made to provide an accurate outline of course topics, requirements, and expectations; however, changes may occur throughout the semester, and these will be announced during lectures and in Webcourses announcements. If absent from class, it is the student's responsibility to

inform him- or herself of any changes. Check Webcourses before class for any announcements or changes posted on the course homepage.

Important Dates: Please consult the Academic Calendar (http://calendar.ucf.edu) to keep yourself informed of holidays, special events, etc.

Human Origins ANT4586C Fall 2022
Course Schedule and Assignments
*Subject to change with notice.

Week	In-Class Dates	Topic	Assignment & Due Dates H (Homework Assignment) D (Discussion Questions)
1	Aug 22 Aug 24 *Lab*	Introduction to course Overview of human evolution *Human anatomy*	H1: Financial Aid **Due 8/26** *Lab 1:* ***Due 8/31***
2	Aug 29 Aug 31 *Lab*	Humans as Primates *Comparative Primate Anatomy*	H2: Ch. 1 **Due 8/29** *Lab 2:* ***Due 9/6***
3	Sept 5 Sept 6 *Lab*	**No Class – Labor Day** The Plio-Pleistocene World *Comparative Anatomy: Humans vs. Great Apes*	 H3: Ch. 2 **Due 9/6** *Lab 3:* ***Due 9/14***
4	Sept 12 Sept 14 *Lab*	Finding and Dating Fossils *Taphonomy and Dating*	H4: Ch. 3 **Due 9/12** *Lab 4:* ***Due 9/21***
5	Sept 19 Sept 21 *Lab*	Naming & Classifying Hominins Discussion & Midterm Review *Species Concepts & Classifications*	H5: Ch. 4 **Due 9/19** D: **Due 9/21** *Lab 5:* ***Due 9/28***
6	Sept 26 Sept 28 *Lab*	**Midterm Exam** Miocene Apes *Miocene Ape Anatomy*	 H6: **Due 9/28** *Lab 6:* ***Due 10/5***
7	Oct 3 Oct 5 *Lab*	Early Hominins: South Africa Discussion *South African Australopiths*	H7: **Due 10/3** D: **Due 10/5** *Lab 7:* ***Due 10/12***
8	Oct 10 Oct 12 *Lab*	Early Hominins: East Africa Discussion *East African Australopiths*	H8: **Due 10/10** D: **Due 10/12** *Lab 8:* ***Due 10/19***
9	Oct 17 Oct 19 *Lab*	Australopith Paleobiology & Phylogeny Discussion *Bipedalism*	H9: **Due 10/17** D: **Due 10/19** *Lab 9:* ***Due 10/26***
10	Oct 24 Oct 26 *Lab*	Early *Homo* Discussion & Midterm Review *Homo habilis*	H10: **Due 10/24** D: **Due 10/26** *Lab 10:* ***Due 11/1***
11	Oct 31 Nov 1 *Lab*	**Midterm Exam** *Homo erectus* *Homo erectus*	 H11: **Due 11/1** *Lab 11:* ***Due 11/9***
12	Nov 7 Nov 9 *Lab*	Middle Pleistocene hominins Discussion *Middle Pleistocene hominins*	H12: **Due 11/7** D: **Due 11/9** *Lab 12:* ***Due 11/16***
13	Nov 14 Nov 16 *Lab*	Neanderthals Discussion *Neanderthals & H. sapiens*	 D: **Due 11/16** *Lab 13* ***Due 11/21***
14	Nov 21 Nov 23	Early *Homo sapiens* & Modern Human Origins **WebCourse-Discussion; No Class Thanksgiving**	H13: **Due 11/21** D: **Due 11/28**
15	Nov 28 Nov. 30	Upper Paleolithic to Holocene Humans Discussion & Review	 D: **Due 11/30**
16	Dec 5-11	**Finals Week: Final Exam TBA**	

Required Readings
(Tentative List)

(Check WebCourses for updates. Any additions will be announced during the previous week.)

Week 1: Introduction to Course & Overview of Human Evolution

- NHM: Know thyself
- Wuketits, F. M. (2015). Charles Darwin, Paleoanthropology, and the Modern Synthesis. In W. Henke & I. Tattersall (Eds.), *Handbook of Paleoanthropology* (pp. 97-125). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-39979-4_82

Week 2: Humans as Primates

- Ch. 1: Humans as Primates
- NHM: Tooth and Nail
- Kirk, E. C. (2013) Characteristics of Crown Primates. Nature Education Knowledge 4(8):3 https://www.nature.com/scitable/knowledge/library/characteristics-of-crown-primates-105284416/
- Martin, R. D. (2015). Chapter 3 - Primate Evolution. In M. P. Muehlenbein (Ed.), *Basics in Human Evolution* (pp. 31-41). Academic Press. https://doi.org/https://doi.org/10.1016/B978-0-12-802652-6.00003-7

Week 3: The Plio-Pleistocene World

- Ch. 2: The Plio-Pleistocene World
- Campisano, C. J. (2012) Milankovitch Cycles, Paleoclimatic Change, and Hominin Evolution. Nature Education Knowledge 4(3):5 https://www.nature.com/scitable/knowledge/library/milankovitch-cycles-paleoclimatic-change-and-hominin-evolution-68244581/
- Kovarovic, K. (2012) Paleoecology and Paleoenvironment: a Case Study of Plio-Pleistocene Mammals from Laetoli. Nature Education Knowledge 4(4):25 https://www.nature.com/scitable/knowledge/library/paleoecology-and-paleoenvironment-a-case-study-of-68245441/
- Rowan, J., & Reed, K. E. (2015). The Paleoclimatic Record and Plio-Pleistocene Paleoenvironments. In W. Henke & I. Tattersall (Eds.), *Handbook of Paleoanthropology* (pp. 465-491). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-39979-4_75
- Sept, J. (2015). Chapter 7 - Early Hominin Ecology. In M. P. Muehlenbein (Ed.), *Basics in Human Evolution* (pp. 85-101). Academic Press. https://doi.org/https://doi.org/10.1016/B978-0-12-802652-6.00007-4

Week 4: Finding and Dating Fossil Hominins

- Ch. 3: Finding and Dating Fossil Hominins
- Peppe, D. J. & Deino, A. L. (2013) Dating Rocks and Fossils Using Geologic Methods. Nature Education Knowledge 4(10):1 https://www.nature.com/scitable/knowledge/library/dating-rocks-and-fossils-using-geologic-methods-107924044/
- Richter, D., & Wagner, G. A. (2015). Chronometric Methods in Paleoanthropology. In W. Henke & I. Tattersall (Eds.), *Handbook of Paleoanthropology* (pp. 317-350). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-39979-4_10

Week 5: Naming & Classifying Hominins

- Ch. 4: Naming and Classifying Fossil Hominins

- McNulty, K. P. (2016) Hominin Taxonomy and Phylogeny: What's In A Name? Nature Education Knowledge 7(1):2 https://www.nature.com/scitable/knowledge/library/hominin-taxonomy-and-phylogeny-what-s-in-142102877/

Discussion Articles

- Jolly, C. J. (2014). A Darwinian species definition and its implications. *Evol Anthropol*, *23*(1), 36-38. https://doi.org/10.1002/evan.21396
- Tattersall, I. (2014). Recognizing species, present and past. *Evol Anthropol*, *23*(1), 5-7. https://doi.org/10.1002/evan.21385
- White, T. D. (2014). Delimitating species in paleoanthropology. *Evol Anthropol*, *23*(1), 30-32. https://doi.org/10.1002/evan.21391
- Groves, C. (2015). Species Concepts and Speciation: Facts and Fantasies. In W. Henke & I. Tattersall (Eds.), *Handbook of Paleoanthropology* (pp. 237-256). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-39979-4_61

Week 6: Miocene Apes

- Ch. 5: Before the Bipeds
- NHM: Going Ape
- McNulty, K. P. (2010). Apes and Tricksters: The Evolution and Diversification of Humans' Closest Relatives. *Evolution: Education and Outreach*, *3*(3), 322-332. https://doi.org/10.1007/s12052-010-0251-z
- MacLatchy, L. M., Sanders, W. J. & Wuthrich, C. L. (2015) Hominoid Origins. Nature Education Knowledge 6(7):4 https://www.nature.com/scitable/knowledge/library/hominoid-origins-135874580/

Week 7: Early Hominins: South African

- Ch. 6: The Earliest Hominins (Part 1): The Australopiths of Southern Africa
- Kullmer, O. (2015). Geological Background of Early Hominid Sites in Africa. In W. Henke & I. Tattersall (Eds.), *Handbook of Paleoanthropology* (pp. 493-510). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-39979-4_11
- Ward, C. V. & Hammond, A. S. (2016) Australopithecus and Kin. Nature Education Knowledge 7(3):1 https://www.nature.com/scitable/knowledge/library/australopithecus-and-kin-145077614/

Discussion Articles

- Clarke, R. J., Pickering, T. R., Heaton, J. L., & Kuman, K. (2021). The Earliest South African Hominids. *Annual Review of Anthropology*, *50*(1), 125-143. https://doi.org/10.1146/annurev-anthro-091619-124837
- Broom R. 1938. The Pleistocene anthropoid apes of South Africa. *Nature* 142:377–79
- Dart RA. 1925. *Australopithecus africanus*: the man-ape of South Africa. *Nature* 115:195–99
- Berger, L. R., Ruiter, D. J. d., Churchill, S. E., Schmid, P., Carlson, K. J., Dirks, P. H. G. M., & Kibii, J. M. (2010). *Australopithecus sediba*: A New Species of *Homo*-Like Australopith from South Africa. *Science*, *328*(5975), 195-204. https://doi.org/doi:10.1126/science.1184944
- Granger, D. E., Stratford, D., Bruxelles, L., Gibbon, R. J., Clarke, R. J., & Kuman, K. (2022). Cosmogenic nuclide dating of Australopithecus at Sterkfontein, South Africa. *Proc Natl Acad Sci U S A*, *119*(27), e2123516119. https://doi.org/10.1073/pnas.2123516119
- Madison, P., & Wood, B. (2021). Birth of Australopithecus. *Evol Anthropol*, *30*(5), 298-306. https://doi.org/10.1002/evan.21917

Week 8: Early Hominins: East Africa

- Ch. 7: The Earliest Hominins (Part 2): The Australopiths of Eastern Africa

- NHM: Where do we begin?
- NHM: Lucy and her Ilk
- NHM: Chipping Away
- Su, D. F. (2013) . Nature Education Knowledge 4(4):11 https://www.nature.com/scitable/knowledge/library/the-earliest-hominins-sahelanthropus-orrorin-and-ardipithecus-67648286/

Discussion Articles

- Bobe, R., & Wood, B. (2022). Estimating origination times from the early hominin fossil record. *Evol Anthropol*, *31*(2), 92-102. https://doi.org/10.1002/evan.21928
- Ward, C. V. (2015). Chapter 10 - Australopithecines. In M. P. Muehlenbein (Ed.), *Basics in Human Evolution* (pp. 129-142). Academic Press. https://doi.org/https://doi.org/10.1016/B978-0-12-802652-6.00010-4
- White, T. D., Lovejoy, C. O., Asfaw, B., Carlson, J. P., & Suwa, G. (2015). Neither chimpanzee nor human, *Ardipithecus* reveals the surprising ancestry of both. *Proceedings of the National Academy of Sciences*, *112*(16), 4877-4884. https://doi.org/doi:10.1073/pnas.1403659111

Week 9: Australopith Paleobiology and Phylogeny

- Ch. 8: Australopith Paleobiology and Phylogeny
- Constantino, P. J. (2013) The "Robust" Australopiths. Nature Education Knowledge 4(1):1 https://www.nature.com/scitable/knowledge/library/the-robust-australopiths-84076648/

Discussion Articles

- Harcourt-Smith, W. E. H. (2015). Origin of Bipedal Locomotion. In W. Henke & I. Tattersall (Eds.), *Handbook of Paleoanthropology* (pp. 1919-1959). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-39979-4_48
- Hunt, K. D. (2015). Chapter 8 - Bipedalism. In M. P. Muehlenbein (Ed.), *Basics in Human Evolution* (pp. 103-112). Academic Press. https://doi.org/https://doi.org/10.1016/B978-0-12-802652-6.00008-6

Week 10: Early *Homo*

- Ch. 9: The Emergence of Culture and the Origins of the Genus *Homo*
- NHM: Scouting for the *Homo* Team

Discussion Articles

- Collard, M., & Wood, B. (2015). Defining the Genus Homo. In W. Henke & I. Tattersall (Eds.), *Handbook of Paleoanthropology* (pp. 2107-2144). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-39979-4_51
- Simpson, S. W. (2015). Chapter 11 - Early Pleistocene Homo. In M. P. Muehlenbein (Ed.), *Basics in Human Evolution* (pp. 143-161). Academic Press. https://doi.org/https://doi.org/10.1016/B978-0-12-802652-6.00011-6

Week 11: *Homo erectus*

- Ch. 10: Que Vadis *Homo erectus*
- Van Arsdale, A. P. (2013) Homo erectus - A Bigger, Smarter, Faster Hominin Lineage. Nature Education Knowledge 4(1):2 https://www.nature.com/scitable/knowledge/library/homo-erectus-a-bigger-smarter-97879043/

Week 12: Middle Pleistocene hominins

- Ch. 11: Almost There – But not Quite: “Archaic” Hominins of the Middle Pleistocene

- Bae, C. J. (2013) . Nature Education Knowledge 4(8):4 https://www.nature.com/scitable/knowledge/library/archaic-homo-sapiens-103852137/
- Rightmire, G. P. (2015). Later Middle Pleistocene Homo. In W. Henke & I. Tattersall (Eds.), *Handbook of Paleoanthropology* (pp. 2221-2242). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-39979-4_55

Discussion Articles

- Roksandic, M., Radović, P., Wu, X. J., & Bae, C. J. (2022). Homo bodoensis and why it matters. *Evolutionary Anthropology: Issues, News, and Reviews*. https://doi.org/10.1002/evan.21954
- Sarmiento, E. E., & Pickford, M. (2022). Muddying the muddle in the middle even more. *Evol Anthropol*. https://doi.org/10.1002/evan.21952
- Delson, E., & Stringer, C. (2022). The naming of Homo bodoensis by Roksandic and colleagues does not resolve issues surrounding Middle Pleistocene human evolution. *Evol Anthropol*. https://doi.org/10.1002/evan.21950
- Roksandic, M., Radovic, P., Wu, X. J., & Bae, C. J. (2022). Resolving the "muddle in the middle": The case for Homo bodoensis sp. nov. *Evol Anthropol*, *31*(1), 20-29. https://doi.org/10.1002/evan.21929

Week 13: Neanderthals

- Ch. 13: What the Fossils Say About "Modern" Human Origins: A Reality Check
- NHM: The Origin of Us

Discussion Articles

- Harvati, K. (2015). Neanderthals and Their Contemporaries. In W. Henke & I. Tattersall (Eds.), Handbook of Paleoanthropology (pp. 2243-2279). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-39979-4_56
- Weaver, T. D. (2009). The meaning of Neandertal skeletal morphology. *Proceedings of the National Academy of Sciences*, *106*(38), 16028.
- Wroe, S., Parr, W. C. H., Ledogar, J. A., Bourke, J., Evans, S. P., Fiorenza, L., Benazzi, S., Hublin, J. J., Stringer, C., Kullmer, O., Curry, M., Rae, T. C., & Yokley, T. R. (2018). Computer simulations show that Neanderthal facial morphology represents adaptation to cold and high energy demands, but not heavy biting. *Proc Biol Sci*, *285*(1876). https://doi.org/10.1098/rspb.2018.0085

Week 14: Early *Homo sapiens* & Modern Human Origins

- Ch. 13: Between Apes and Humanity: "Modern" Human Origins
- NHM: The Paleogenomic Revolution

Discussion Articles

- Stringer, C. (2014). Why we are not all multiregionalists now. *Trends in Ecology & Evolution*, *29*(5), 248-251. https://doi.org/https://doi.org/10.1016/j.tree.2014.03.001
- Henn, B. M., Steele, T. E., & Weaver, T. D. (2018). Clarifying distinct models of modern human origins in Africa. *Curr Opin Genet Dev*, *53*, 148-156. https://doi.org/10.1016/j.gde.2018.10.003
- Stringer, C. (2016). The origin and evolution of *Homo sapiens*. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *371*(1698), 20150237. https://doi.org/doi:10.1098/rstb.2015.0237

Week 15: Upper Paleolithic to Holocene Humans

- NHM: Finding Meaning
- NHM: The Future of *Homo sapiens*

- Wurz, S. (2012) The Transition to Modern Behavior. Nature Education Knowledge 3(10):15

Discussion Articles

- Mirazon Lahr, M. (2016). The shaping of human diversity: filters, boundaries and transitions. *Philos Trans R Soc Lond B Biol Sci*, *371*(1698). https://doi.org/10.1098/rstb.2015.0241
- Ackermann, R. R., Arnold, M. L., Baiz, M. D., Cahill, J. A., Cortés-Ortiz, L., Evans, B. J., Grant, B. R., Grant, P. R., Hallgrimsson, B., Humphreys, R. A., Jolly, C. J., Malukiewicz, J., Percival, C. J., Ritzman, T. B., Roos, C., Roseman, C. C., Schroeder, L., Smith, F. H., Warren, K. A., . . . Zinner, D. (2019). Hybridization in human evolution: Insights from other organisms. *Evolutionary Anthropology: Issues, News, and Reviews*, *28*(4), 189-209. https://doi.org/https://doi.org/10.1002/evan.21787