

ANTH A107: Becoming Human: Evolving genes, bodies, behavior, ideas

Lectures: Mon/Wed 1:45-2:35, Ballantine Hall 310

Lab: Tues Student Building 060



Utah's Nine Mile Canyon, AD 600-1300

Course Description

What does it mean to be human?

Are we defined by our ability to communicate? To create?

To organize complex society?

In this course, you will learn to use the tools of evolutionary anthropology to trace human origins and adaptations through deep time. The goal will be to explore how evidence from the past (fossils, remnants of tools and art, DNA) as well as parallels in the present helps us to define what it means to be human and understand the unique moments of adaptation and change that created, and continues to maintain, our species.

Course Learning Objectives

- Use different kinds of scientific evidence to evaluate the strengths and weaknesses of popular portrayals of the human evolutionary past.
- Make comparisons between contemporary socio-biological processes in the present, to interpret the lives and behavioral traits of our ancestors.
- Compare and integrate information from different sources to evaluate hypotheses about the human past.
- Describe key stages in human biological and cultural development.
- Describe key similarities and differences between living humans and our closest living primate relatives.
- Summarize how contemporary human biological and cultural diversity has developed through time and around the world.
- Evaluate relationships between humans and the environment through time.
- Explain how different types of evolutionary anthropological data are collected and analyzed, and what they help us understand.

GEN-ED Learning Outcomes

- Understand the basis of scientific inquiry as applied to evolutionary anthropology
- Model and understand the physical and natural world, and its role in evolution
- Think critically and analytically to interpret evolutionary contexts

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Course Expectations and Requirements

Module I: The Roots of Evolutionary Anthropology

Module II: Our Primate Relatives

Module III: Hominids and Hominins

Module IV: Human Adaptability

READINGS:

In attempts to create equitable access for all course attendees, you are not required to purchase a textbook for this class. The majority of your readings will draw from the American Anthropology Association's Open Access textbook, "Explorations", available [here](#) and on Canvas, in addition to shorter readings, podcasts, and video clips. *You will find weekly readings posted on the Lecture canvas page under the "Modules" tab.* Each week's readings will assist you in completing the weekly Quiz.

LECTURE ATTENDANCE & PARTICIPATION (10%):

To get credit for classroom participation we will be using the FREE campus student response system called Top Hat. Once you enroll, you will be able to submit answers to in-class questions using Apple or Android smartphones, tablets, laptops, or through text message.

We will begin class participation credit beginning with Lecture 2, for a total of 28 possible participation credits. Every student is allowed up to 4 free absences from lecture, for whatever reason (joining the class late, a job interview, malfunctioning alarm clock, nausea, whatever). Thus, participating 24+ times = 100%. Only students who have an unusually long medical or personal issue will be granted any make-up credit, by arrangement with the instructors.

TOP HAT:

To enroll in Top Hat for participation credit for A107, you will need to enter Top Hat through the Assignment link from our Canvas site. Please visit the Student: Indiana University Quick Start Guide (<https://support.tophat.com/s/article//Student-Indiana-University-Quick-Start-Guide>) within the Top Hat Success Center which outlines how you will register for a Top Hat account, as well as providing a brief overview to get you up and running on the system.

Should you require assistance with Top Hat at any time, please contact the Top Hat Support Team directly by way of email (support@tophat.com), the in-app support button, or by calling 1-888-663-5491

Assignments

WEEKLY QUIZ (10%):

There will be no in-class exams for this course. Instead, weekly quizzes will be available through CANVAS. They will be posted on Wednesday at 4pm, and be due the following Wednesday at 9 am.

These quizzes are open book, and you will be able to complete them in consultation with other students. The quizzes cover material from lecture, labs and readings, and are intended to ensure that you are keeping up with course concepts. However, you will only have 60 minutes and one chance to complete each quiz, so you should be prepared for each week's quiz before you log in to start it.

There will be 12 weekly quizzes throughout the semester, 10 of which will apply to your final grade, which means you can drop the two lowest quiz scores.

WEEKLY LABS (20%)

These sections, led by AIs and supported by UTAs, will give you the opportunity to get to know other students in the class, discuss class concepts in small groups, and get "hands on" experience studying primate morphology, fossils, artifacts, and other types of physical evidence. At the end of each lab, you will submit a worksheet or other type of assignment. You will be graded on the quality of your written work in the class activities, and the quality of your engagement and participation, not just on your attendance.

Sections are REQUIRED and start the first week of class. Please attend the section for which you registered. There are 15 total weeks of labs – your final lab grade will be based on your 12 highest-scoring lab assignment grades.

DEEP-DIVE ASSIGNMENTS (45%):

It is important to learn how to think critically, to synthesize concepts, and to reason and express yourself clearly while you are in college. Our assignments are designed to help you achieve these goals. There will be 4 different deep-dive assignment opportunities, and we will base your grade on the best 3 you submit. Detailed instructions will be provided closer to the assignment date

- Module 1: Evolution Infographic. Pick an evolutionary concept from this module, and design an illustration to explain how it works, with examples.
- Module 2: Primate Family Tree Essay. Reflection on how primate lifestyles can help us better understand our own.
- Module 3: Class Museum. Create an exhibit with your lab group, demonstrating what can be learned from the materials we leave behind.
- Module 4: Oral History. Write, Draw, or Tell a creation story.

FINAL EXAM (15%):

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Like quizzes, the final exam will be arranged online, posted on the first day of finals week (Monday December 13th at 9 am) and will be due by 8 pm on Friday December 17th. From the moment you open the exam, you will have 24 hours, and one chance to complete the exam.

Grade Components

The grade scale is as follows:

A, 94-100	A-, 90-93
B+, 86-89	B, 83-85
B-, 80-82	C+, 76-79
C, 73-75	C-, 70-72
D, 65-69	F, below 65

- In-class participation: 10%
- Weekly Quiz: 10%
- Weekly Lab Assignment: 20%
- Deep Dive Assignments: 45%
- Final Exam: 15%

Late Assignment/Absence Policy

We are going into a second year of pandemic-era learning, where compounded crises (pandemic-related trauma, illness, global climate impacts, racial inequities, financial insecurity, mental health crises) are piled on top of regular semester stressors. Your top priority is your own wellbeing – as such, class assignments have been designed to allow you to take a few breaks when you need them.

- Top 10 of 12 quizzes used for final grade
- Top 12 of 15 lab assignments used for final grade
- Top 3 of 4 Deep dive assignments used for final grade
- 24 of 28 days of lecture attendance used for final grade
- Wellness Week in Week 9

If you find yourself falling behind, please communicate with your AIs to find a solution (eg. extra study sessions, office hours, extensions). We are here to support you and will be best able to do so with early awareness of any problems.

Expected Course Behaviors

Practice flexibility: This is a unique moment to be engaging in group learning. As a course that will be meeting during the COVID pandemic, we are navigating quickly changing schedules, meeting contexts, and personal capacities. The syllabus presented on the first day of class is a loose guide, rather than a concrete schedule, and will adapt with whatever this semester brings. Updated syllabi can be found on CANVAS. Of you, I ask for *patience* as we figure out how best to structure the class to meet everyone's needs, *clear and timely communication* about what needs you may have (eg. assignment extensions, access needs, etc.), and *feedback* so that we can find a balance about what works best.

Be Present

I ask that you respect your learning space and that of your classmates by removing distractions (cell phones, open browser tabs, etc.) during active learning time (eg. lectures and labs). If there are barriers that limit your ability to be fully present (eg. needs related to neurodiversity, learning ability, etc.) please communicate this to the professor so that we can create an environment best suited to maximum engagement.

Use your own words and experiences

This course relies on the [IU Code of Student Rights, Responsibilities, & Conduct](#). No plagiarism, cheating, or copying are permitted (as defined [here](#)). You are responsible for understanding plagiarism and how to avoid it.

Accessibility

Students are expected to keep the classroom a place that is welcoming, safe, mutually respectful, and which allows everyone to exist as their full selves. If you are uncomfortable attending class due to the behavior of another member of our community, please communicate with the instructor or the department about the issue. Students with disabilities may receive assistance and accommodation of various sorts to enable them to participate fully. To establish the accommodations appropriate for each student, please alert your instructor to your needs. [The Disability Services Program](#) provides a wide range of support services.

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Course Schedule

Date	Theme	Readings	Assignments
MODULE 1: INTRO & ROOTS OF EVOLUTION			
Week 1: What is Biological Anthropology?			
M 8/23	Lecture: Welcome, Syllabus, Intro to Anthropology	Read: Explorations Ch. 1. pgs 1-16	
T 8/24	Lab: Thinking like an Anthropologist	AND	Due: Week 1 Lab activity
W 8/25	Lecture: Intro to Biological Anthropology	What is Anthropology	Quiz #1 opens 4pm
Week 2: Understanding Evolution			
M 8/30	Lecture: The Scientific Method, Knowledge & Belief Systems	Read: Explorations Ch. 1, pgs 16-24	
T 8/31	Lab: Practicing the Scientific Method	AND Explorations Ch. 2, 29-34 (end at Post-Darwinian Theories and Disputes)	Due: Week 2 Lab activity
W 9/1	Lecture: Intro to Evolution, History of Evolutionary Thought	AND Hitting the Redo Button on Evolution Watch: What is Evolution	Due: Quiz #1 by 9 am Quiz #2 opens 4pm
Week 3: Natural Selection and Genes			
M 9/6	NO CLASS, LABOR DAY		
T 9/7	Lab: Cladograms	Read:	Due: Week 3 Lab activity
W 9/8	Lecture: Evolutionary thought Ctd, Survival of the Fittest and Natural Selection	Explorations Ch. 2, 34-53, AND Intro to Genetics and Genomics AND “Whats in your genes” Ch. 1 OPTIONAL: Explorations Ch. 3 & 4 for deep dive on genetics	Due: Quiz #2 by 9 am Quiz #3 opens 4pm
Week 4: Evolution Past and Present			

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M 9/13	Lecture: Background to Genetics	Read:	
T 9/14	Lab: Infographic Assigned, Draft stage	When Evolution Is Not a Slow Dance but a Fast Race to Survive	Due: Week 4 Lab activity
W 9/15	Lecture: Contemporary Evolution + Ecologies Epigenetics and Eugenics movements	AND Grizzly bear DNA maps onto Indigenous Language Families	Due: Quiz #3 by 9 am Quiz #4 opens 4pm
MODULE 2: OUR PRIMATE RELATIVES			
Week 5: Species and Family Trees			
M 9/20	Lecture: The Primate Family Tree	Read:	
T 9/21	Lab: Comparative Anatomy and Ecosystems	Explorations Ch 5. P. 148-153, SKIM p. 159-180	Due: Week 5 Lab activity
W 9/22	Watch: Secrets of Survival	How Gibbons Skulls could help us understand the social lives of our ancient ancestors AND Complete chromosome 8 sequence reveals novel genes and disease risks	Due: Quiz #4 by 9 am Quiz # 5 opens 4 pm Deep Dive #1: Infographic Due by midnight Friday 9/24
Week 6: Primate Behavior and Sociality, Great Ape Biology and Culture			
M 9/27	Lecture: Role of diet in primate evolution	Read:	
T 9/28	Lab: Evolution of taste	Explorations Ch. 5 P. 153-158 Ch. 6 P. 190-196	Due: Week 6 Lab activity
W 9/29	Lecture: Primate Culture and Communication	Primate voice boxes are evolving much faster than those of other mammals AND Primate speech: How some species are 'wired' for talk	Due: Quiz #5 by 9 am Quiz #6 opens 4pm
Week 7: Primate Society and Politics			

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M 10/4	Lecture: Primate social organization, evolution of conflict and altruism	Read: Explorations Ch 6. P1 196-225	
T 10/5	Lab: Brainstorm for Deep Dive #2, Primate Family Tree essay	AND Humans would be better if they monkeyed around like the Muriquis	Due: Week 7 Lab activity
W 10/6	Lecture: Transmission of Knowledge	AND Chimps found to pass knowledge on to the next generation	Due: Quiz #6 by 9 am Quiz #7 opens 4pm
FALL BREAK – Friday Oct 6			
MODULE 3: HOMINIDS AND HOMININS			
Week 8 Intro to the Fossil Record			
M 10/11	Lecture: Intro to the Fossil Record	Read:	
T 10/12	Lab: Relative vs. Numeric Age	Radiometric dating puts pieces of the past into context	Due: Week 8 Lab activity
W 10/13	Lecture: Changing climate, changing food	AND Dating Craters AND Explorations Ch. 7 Optional: Ungar. The Evolution of the Human Diet	Due: Quiz #7 by 9 am DUE: Deep Dive #2: Primate Family Tree Essay due by midnight Friday 10/15
Week 9 Foraging+ WELLNESS WEEK			
M 10/18	No class- Zoom support instead		
T 10/19	Extra Credit: Healing Garden – sign up to attend during M/W class time. Sign up for any zoom support/office hours/questions during your regular lab times.		Lab 9: Scavenger Hunt Activity
W 10/20			Quiz #8 opens 4pm
Week 10 From Primates to Hominins			
M 10/25	Lecture: Intro to Australopithecines and general characteristics	Read: Explorations Ch. 9 (p.319-344)	
T 10/26	Lab: Adaptations beyond the trees	AND	Due: Week 10 Lab activity

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W 10/27	Lecture: Pre-Australopithecines + Australopithecines + contemporary findings	What if other human species hadn't died out? AND Rosetta Stone Fossil shows Australopithecines Still had Apelike Shoulders	Due: Quiz #8 by 9 am Quiz #9 opens 4pm
Week 11 Hominins and Material Culture			
M 11/1	Lecture: Stone tool technologies	Read: Readings: Explorations Ch 9 (p. 344-346) Explorations Ch. 12 (p. 18-19) Explorations Ch. 11 (p. 411-414) AND Smith. A prehistoric Dog's Life	Due: Week 11 Lab activity
T 11/2	Lab: Lithic production and interpretation		
W 11/3	Lecture: Zooarchaeology and human-animal relationships.		Due: Quiz #9 by 9 am Quiz #10 opens 4pm
Week 12 Genus Homo and Global Diversity			
M 11/8	Lecture: Introduction to the genus Homo, Homo erectus and migration.	Read: Explorations Ch. 10 (p. 1-24) Explorations Ch. 11 (p. 403-433) AND Climate changed the size of our bodies and, to some extent, our brains AND Dragon man fossil may replace Neanderthals as our closest relative	Due: Week 12 Lab activity
T 11/9	Lab: Prep for Deep Dive #3 – Class Museum		
W 11/10	Lecture: Homo neanderthalensis and Homo sapiens cultural exchange		Due: Quiz #10 by 9 am Quiz #11 opens 4pm
MODULE 4: HUMAN ADAPTABILITY			
Week 13 Anatomically Modern Humans			
M 11/15	Lecture: AMH Migration and adaptation	Read: Explorations Ch. 12 AND Footprints AND	Due: Week 13 Lab activity
T 11/16	Lab: Culture + migration		
W 11/17	Lecture: Ecological adaptations in culture, language		Due: Quiz #11 by 9 am

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		Homo sapiens developed a new ecological niche	DUE: Deep Dive #3 Class Museum due by midnight Friday 11/19
Week 14			
11/22-11/26 NO CLASS THANKSGIVING BREAK			
Week 15 Food and Adaptation			
M 11/30	Lecture: The Agricultural Revolution and its biocultural impacts	Read: Ch. 12 p. 469-472	
T 12/1	Lab: The science of Oral Histories	The Oldest True Stories in the World	Due: Week 15 Lab activity
W 12/2	Lecture: Alcantara's work in Mexico	And Cohen. Origins of Agriculture	Due: Quiz #12 opens 4pm
Week 16 Evolution in Art and Culture			
M 12/6	Lecture: the Indigenous history of Indiana	NO READINGS	
T 12/7	Lab: Check-in Final Exam and Deep Dive: Oral History		Due: Deep dive #4: oral history
W 12/8	Lecture: Extra Credit – Oral History presentations	Final Exam Review	Due: Quiz #12 by 9 am
EXAM WEEK: FINAL EXAM RELEASED MONDAY DEC.19, 9 AM DUE FRIDAY DEC. 17 TH , 8 PM.			
YOU MADE IT!!!			