

ANT 270: INTRO TO BIOLOGICAL ANTHROPOLOGY



Fall 2019 / Lectures: Mon/Wed 12-1:15 / ten Hour 257

Your Hosts

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Classroom Conduct

I enforce an electronics-free classroom. Leave your phones hidden in your backpacks and in airplane mode or turned off. Leave your laptops and tablets at home. If you text in my class, check your social media, or engage in any other rude and unseemly behavior, I'll ask you to leave class; and you'll be marked as absent. I'm very active on social media and my phone too (and you may follow me, whereupon I will follow you back—I'm always promoting something), but I will only bring my phone to class because DUO forces me to have access to it. I AM DEAD SERIOUS ABOUT THIS. DON'T TOUCH THE PHONE DURING CLASS. If you need an exception made, please see me and I will consider it.

ANT 270 Course Description: This course provides an introduction to the current scientific consensus about human biological variation and evolution with an emphasis on the interaction of social behavior and biological change. The first section of the course begins with a review of the scientific method, and then presents evolutionary theory and the underlying genetic and biological principles. The second section of the course is a brief survey about what we know regarding the behavior and evolution of the non-human primates. Learning about primates, which are our closest mammalian relatives, can help us understand human evolution and behavior. The third section of the course explores the evolution of hominids, the human ancestors and their close relatives, through the emergence of modern humans. Finally, we address modern human biological variation from the perspective biocultural adaptation and culture change in living populations. The objective of the course is to give the student an appreciation for the place of humans in nature from a biocultural and evolutionary perspective and to provide the background necessary to critically evaluate statements about human biology.

The course is an approved elective toward the natural science core curriculum requirements.

Student Learning Outcomes: By the end of this term, you should be able to:

1. Explain and quantitatively apply the respective roles of selection, random forces, and equilibrium in population genetics and human evolution.
2. Communicate scientific information that common ancestry of humans and other primates is supported by multiple lines of empirical evidence.
3. Identify major distinguishing morphological characteristics of hominid paleospecies, modern humans, and living primates and describe their functional significance.
4. Apply biocultural, evolutionary, and adaptive critical thought processes to new problems in human biological, especially those encountered among global modern human populations.

COURSE MATERIALS

Required Texts

Robert Boyd and Joan Silk, *How Humans Evolved*.

Richard Wrangham, *Catching Fire*.

Elizabeth Soluri and Sabrina Agarwal, *Laboratory Manual and Workbook for Biological Anthropology*.

Blackboard

This course will use Blackboard to distribute additional material. Access Blackboard via myBama. There is a box called Blackboard on the Academics tab that should list your courses that are currently let up with Blackboard.

We will also use Blackboard to turn in all assignments. I STRONGLY recommend you set up Blackboard to send you email notifications when things are posted, updated, due, or have been graded. To do this, follow these instructions:

1. Log in to Blackboard.

2. Toggle the arrow next to your name at the upper right hand corner of your screen.
3. Select "Settings" at the bottom of the screen that appears.
4. Select "Edit Notification Settings."
5. Select this course from the list.
6. Under "2. Settings," check the box above Email so it notifies you when any actions are taken.
7. Be sure to click the "Submit" button to save these settings.

Attendance

You are required to come to class and participate. Attendance will be monitored by your GTA (check in with her upon arrival to every class). You can miss 3 lectures (NOT labs) for any reason whatsoever with no penalty. However, if you miss more than 3 lectures, whether excused or unexcused, 5 course points will be deducted from your course grade for each additional absence. Excessive absence will result in a failing grade in the course. Participating will enable me to learn who you are better and remember you. For instance, some day you might want me to write you a letter of recommendation. I remember those who are active participants in class.

ASSIGNMENTS AND EXAMS

Tests and Final Exam

Exams: There will be 4 exams, including the final. The midterm and final exams are cumulative. Exams will cover material as indicated on the Outline of Topics below and can include material from the text, the lab manual, or information from the lectures. Lectures will be administered via PowerPoint presentations, which will be made available for study on Blackboard as PDFs before the respective exam. These do not replace taking your own notes. I minimize the amount of text on PowerPoint slides to encourage you to take notes because the process of handwriting will help you recall information (remember, no laptops in class). Also, material often comes up in the course of lectures that is also fair game for exams. This material will also be available via Blackboard as Tegrity capture files when possible. However, utilizing Blackboard and Tegrity are not substitutes for coming to class, as I cannot guarantee that it will be of a quality that suits you. Statistics gathered within our department demonstrate that students who come to class, take systematic notes, participate in discussions, AND use online study resources do MUCH better than students who use online resources alone.

Final Exam Exceptions: If you have an A in the course after the 3rd exam, you have the option to not have to take the final exam. If you have a B in the class after the 3rd exam and have not been absent more than 3 times (for whatever reasons, excused or unexcused), you do not have to take the final exam. If you have a C in the course and have not missed any classes, you do not have to take the final exam (but you may want to and benefit in getting your grade up). If you opt out of the final exam, weighting for exams 1-3 will be adjusted accordingly (see below).

Paper: A 5-page paper will be due the last week of class. The paper will be based on the questions drawn from Wrangham's *Catching Fire*. I will assign the term paper question at least two weeks before the paper is due with all the instructions for

completing the assignment. These will be turned in on the assigned date to your lab instructor.

Labs: When you registered for the class, you selected a lab section—check your schedule for the correct time and place. BEFORE EACH LAB MEETING, read the introductory text from the appropriate *Soluri & Agarwal* lab manual chapter. Then, there will be several exercises to be completed DURING THE LAB. Some are book work, others are group exercises, and still others are hands-on work (individual or collaborative) using materials such as skeletal casts. You will never do all of the exercises in the *Soluri & Agarwal* lab manual for any chapter. At the beginning of each lab we'll announce which exercises will be used for that day and guide you through them. You will not usually have to turn them in—instead, your lab session instructor will monitor your participation and give credit based on what you do in class. You will use these in-class exercises to be able to complete the post-lab questions that you will turn in. *Post-lab questions* are found at the end of each lab workbook chapter. These are due at the very beginning of the next regular class session after the lab (i.e., usually Monday at noon—or Wednesday, when we have an exam). You may type your answers and email them to your lab instructor, turn them in to her mailbox in the Anthro Department Office (ten Hoor 19), or you may pull the pages out of your manual and hand them in at the beginning of the next lecture. Late labs can receive half credit if they're turned in within 1 week of the date of the lab. Late labs receive no credit after that. Your GTA is not authorized to waive this policy, so please do not ask.

GRADING POLICY

TEST 1=	15%
MIDTERM EXAM=	20%
PAPER=	10%
TEST 3=	15%
LABS=	20%
FINAL EXAM=	20%
	100%

*If you opt for the Final Exam exemption, Test 1 and 3 will be worth 20% each and the Midterm Exam worth 25%.

OUTLINE OF TOPICS*

Week/Date	Day: Topic	Readings/Activity
WEEK 0 8/21	W: First, tattoo your mouth	
8/23	F: LAB	Lab manual (LM) chapter 1
WEEK 1 8/26	M: Anthropological perspective	Haviland et al. pp. 3-15 (Blackboard), Wrangham Introduction
8/28	W: Science, humanities, ethics	Haviland pp. 16-23
8/30	F: LAB	LM ch 4

WEEK 2 9/2	M: LABOR DAY, NO CLASS	
9/4	W: Theory of evolution	Boyd & Silk (B&S) ch 1, Wrangham ch 1
9/6	F: LAB	LM ch 2
WEEK 3 9/9	M: Mendelian genetics	B&S pp. 25-36, Wrangham ch 2
9/11	W: Molecular genetics	B&S pp. 37-52
9/13	F: Lab	LM ch 2
WEEK 4 9/16	M: Population genetics	B&S pp. 53-80, Wrangham ch 3
9/18	W: Speciation & phylogeny	B&S pp. 81-108
9/20	F: LAB	LM ch 9
WEEK 5 9/23	M: Primate diversity & ecology	B&S pp. 109-144
9/25	W: TEST 1	
9/27	F: LAB	LM ch 10
WEEK 6 9/30	M: Primate mating systems	B&S pp. 145-172, Wrangham ch 4
10/2	W: Evolution of cooperation	B&S pp. 173-192
10/4	F: LAB	LM chaps 11-12
WEEK 7 10/7	M: Primate life histories	B&S 193-210, Wrangham ch 5
10/9	W: Fossil primates	B&S pp. 211-236
10/11	F: LAB	LM ch 13
WEEK 8 10/14	M: Ancestral contenders	B&S pp. 237-266, Wrangham ch 6
10/16	W: Tools & life history	B&S pp. 267-290
10/18	F: LAB	LM chaps 5-6
WEEK 9 10/21	M: COMPREHENSIVE MIDTERM EXAM	
10/23	W: Archaic <i>Homo</i> & Neanderthals	B&S pp. 291-328
10/25	F: LAB	LM 14
WEEK 10 10/28	M: <i>Homo sapiens sapiens</i>	B&S pp. 329-344, Wrangham ch 7
10/30	W: Out of Africa	B&S pp. 345-362
11/1	F: MID-SEMESTER BREAK, NO CLASS	
WEEK 11 11/4	M: Upper Paleolithic revolution	Haviland et al ch 8 (196-223 Blackboard), Wrangham ch 8

11/6	W: Neolithic revolution	Haviland et al. ch 9 (224-247)
11/8	F: LAB	LM 15
WEEK 12 11/11	M: Human variation	B&S pp. 363-380, Wrangham Epilogue
11/13	W: Race concept	B&S pp. 381-396
11/15	F: LAB	LM ch 16
WEEK 13 11/18	M: Contemporary behavior	B&S pp. 397-410
11/20	W: Test 3	
11/22	F: LAB	LM chaps 7-8
WEEK 14 11/25	M: Mate preferences	B&S pp. 411-416
11/27	THANKSGIVING, NO CLASSES	
11/29		
WEEK 15 12/2	M: Human culture	B&S pp. 417-426
12/4	W: Cooperation & current evolution	B&S pp. 427-438
12/6	F: LAB (PAPER DUE)	Review
12/9, 11:30-2:00 PM	M: Comprehensive Final Exam	

*Subject to change. There will also likely be a weekend field trip to the Birmingham Zoo. This will not be required but will be awesome and highly recommended and likely provide an extra credit opportunity. GTAs will announce details, including dates and cost, as soon as we have scheduled it. This field trip is to see the primates and get a tour by the primate keeper and is always very popular and enriching. Because the class is so big this semester, we may offer multiple slots to choose from. This will likely take place in October during the primates section of the course and when it gets cooler outside.

OTHER COURSE MATERIAL

Policy on Missed Exams and Coursework

1. If you miss any exam for any reasons whatsoever, make-ups will consist of completing a 15-page paper on a topic of Dr. Lynn's choosing.
2. There is no way to make up for a missed lecture. You get three "free" absences, period. If you waste them early and need them later, that's on you.
3. Post-lab questions receive only half credit if turned in any time after the very beginning of the next lecture. Labs receive no credit if turned in more than 1 week after the lab session. This policy is waived only under exceptional circumstances where there is clearly no reasonable way you could have completed the questions in the time allotted.
4. Late papers will lose a letter grade for each day they are late.

Facebook

Outside of class, there is a closed Facebook group for the course at <http://www.facebook.com/groups/ANT270/>. This group is used to share relevant information from media sources, and facilitate discussion. Please request to join the group. If you are not on Facebook, you will need to join, if only to participate in our group (you can make your profile private so no one finds out). There is also a great online news group called [BioAnthropology News](#) that I recommend you join if you enjoy the material in this course. While you're at it, "like" the [UA Department of Anthropology](#) on Facebook so that we can keep in touch with you and you can stay informed about our events and activities.

Evolutionary Studies

If you are not an anthropology major or minor, this course can also fulfill a requirement as a foundation course to a minor in Evolutionary Studies (EvoS). It is open to all students but is a requirement for the minor. If you have not already decided to declare a minor in EvoS, we hope this course leads you to consider doing so. EvoS is an interdisciplinary minor, designed to introduce students to the fundamental importance of evolutionary theory as an explanatory model for life and behavior. See <https://evolutionarystudies.as.ua.edu/> for requirements and courses.

Undergraduate Research

I take new students into the Human Behavioral Ecology Research Group (HBERG) every semester who are interested in getting involved in the kind of research I conduct and which is related to this course. Learn more about HBERG activities here: <http://cdlynn.people.ua.edu/hberg.html>. To apply to work with me, fill out the form at this portal: <http://cdlynn.people.ua.edu/join-us.html>.