ANT 270: INTRO TO BIOLOGICAL ANTHROPOLOGY



Spring 2020 / Lectures: Mon/Wed 12-1:15 / Smith 205

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.

<u>Final Exam Exceptions</u>: 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).

<u>Paper</u>: A 5-page paper will be due after the midterm. 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.

<u>Labs</u>: 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, the Midterm Exam 25%, and Labs 25%.

OUTLINE OF TOPICS*

| Week/Date | Day: Topic | Readings/Activity |
|----------------|--------------------------------|--|
| WEEK 0 1/8 | W: First, tattoo your mouth | |
| 1/10 | F: LAB | Lab manual (LM) chapter 1, Wrangham Introduction |
| WEEK 1 1/13 | M: Anthropological perspective | Haviland et al. pp. 3-15 (Blackboard), Wrangham ch 1 |
| 1/15 | W: Science, humanities, ethics | Haviland pp. 16-23 |
| 1/17 | F: LAB | LM ch 4 |
| WEEK 2 1/20 | M: MLK DAY, NO CLASSES | |
| 1/22 | W: Theory of evolution | Boyd & Silk (B&S) ch 1, Wrangham ch 2-3 |
| 1/24 | F: LAB | LM ch 2 |
| WEEK 3 1/27 | M: Principles of inheritance | B&S ch 2, Wrangham ch 4 |

| 1/29 | W: Modern synthesis & population genetics | B&S ch 3 | |
|-----------------|---|---------------------------------------|--|
| 1/31 | F: Lab | LM ch 2 | |
| WEEK 4 2/3 | M: Speciation & phylogeny | B&S ch 4, Wrangham ch 5 | |
| 2/5 | W: Primate characteristics | B&S ch 5 | |
| 2/7 | F: LAB | LM ch 9 | |
| WEEK 5 2/10 | M: Primate diversity | B&S ch 6 | |
| 2/12 | W: TEST 1 | | |
| 2/14 | F: LAB | LM ch 10 | |
| WEEK 6 2/17 | M: Social Climbers | B&S ch 7, Wrangham ch 6 | |
| 2/19 | W: Primate social behavior | B&S ch 8 | |
| 2/21 | F: LAB | LM chaps 11-12 | |
| WEEK 7 2/24 | M: Recovering remains | B&S 206-213, Wrangham ch 7 | |
| 2/26 | W: Primate origins | B&S pp. 214-231 | |
| 2/28 | F: LAB | LM ch 13 | |
| WEEK 8 3/2 | M: Miocene hominoids | B&S pp. 232-237 | |
| 3/4 | W: Hominid evolution | B&S pp. 238-259 | |
| 3/6 | F: LAB | LM chaps 5-6 | |
| WEEK 9 3/9 | M: COMPREHENSIV | E MIDTERM EXAM | |
| 3/11 | W: Early hominids | B&S pp. 260-274, Wrangham ch 8 | |
| 3/13 | F: LAB | LM 14 | |
| SPRING BREAK | | | |
| WEEK 10 3/23 | M: Early <i>Homo</i> | B&S pp. 275-295, Wrangham Epilogue | |
| 3/25 | W: Dawn of Humanity | B&S pp. 296-304 | |
| 3/27 | F: LAB (PAPER DUE) | LM 15 | |
| WEEK 11 3/30 | M: Early <i>Homo</i> (cont'd) | B&S pp. 305-321 | |
| 4/1 | W: Neandertime | B&S pp. 322-343 | |
| 4/3 | 4/3 F: HONORS DAY, NO CLASSES | | |
| WEEK 12 4/6 | M: Hominid dispersals | B&S pp. 344-353 | |
| 4/8 | W: Archaic Homo sapiens | B&S pp. 354-379 | |

| 4/10 | F: LAB | LM ch 16 |
|-----------------|-----------------------------|---|
| WEEK 13 4/13 | M: Upper Paleolithic | Haviland et al ch 8 (196-223 Blackboard) |
| 4/15 | W: Test 3 | |
| 4/17 | F: LAB | LM chaps 7-8 |
| WEEK 14 4/20 | M: Neolithic transition | Haviland et al. ch 9 (224-247) |
| 4/22 | W: Race concept | B&S pp. 417-426, B&S pp. 379-384 |
| 4/24 | F: LAB | Review |
| | F: Comprehensive Final Exam | |

^{*}Subject to change. There will also likely be a weekend field trip to the Birmingham Zoo. This will not be required by 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.

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.