

ANTHROPOLOGY 001 - INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY
Fall 2013 CRN: 50035

Monday, Wednesday: 2:20 – 3:35 PM

Lecture meets in Funger Hall Rm. 103 / Lab sections meet in 2020 K St. NW, Rm 16

Course Instructor: Prof. Alison S. Brooks
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Office Hours: Mon. 4-5, Thurs 2-3, or by appointment
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Lab sections (2020 K St. Rm 16)

W 8:10-10:00pm, R 8:00-9:50am

R 10:00-11:50am, 12:00-1:50pm, F 8:00-9:50am

F 10:00-11:50am, 12:00-1:50pm, 2:00-3:50pm

R 6:00-7:50pm, R 8:00-9:50pm

W 6:10-8:00pm

R 2:00-3:50pm, R 4:00-5:50pm

Office location & hours

2114 G St #308, TBA

2110 G street #B-02, TBA

2110 G St. #B-02 R 2-4 pm

2029 G St #B-01C2. TBA

2114 G St. #308, M 12-2 pm

2114 G St #308, TBA

COURSE DESCRIPTION. Who are we and where did we come from? What makes us, as humans, different from other animals? In this course we will explore the factors that have shaped our species' anatomy, physiology, and behavior. Because the study of human evolution is rooted in fundamental principles of modern biology, the course will begin with discussion of natural selection, genetics and heredity. We will examine our species' place in nature by reviewing current research on the behavior, ecology, anatomy, and evolution of our close cousins, the other primates. With this background, we will investigate the fossil record for human evolution and discuss what it tells us about the biology of our direct ancestors. Finally, we will also explore how adaptations in modern human populations may account for current diversity in our species.

LEARNING OBJECTIVES. (Specific)

By the end of this semester, students will:

- Understand the evolutionary framework and theoretical concepts that are fundamental to biological anthropology, appreciate how these ideas have developed over time, and learn ways in which evolutionary forces have shaped variation among modern human populations today;
- Understand anatomical and behavioral diversity among non-human primates and the fossil evidence for their evolution, as these pertain to humans' place in nature;
- learn the basic empirical evidence pertaining to human evolutionary history, and understand the bases for reconstructing anatomical and behavioral adaptations in the human lineage over time;
- Upon completion of this course, students will be prepared for more advanced coursework in biological anthropology.

LEARNING OBJECTIVES. (Specific)

This course will contribute to the student's development of:

- Scientific reasoning skills, including proposing relationships between observed phenomena, designing experiments to assess the validity of these relationships and evaluating the results of these experiments. Through hands-on experiences in the laboratory section, students will test hypotheses using data, scientific reasoning and the application of quantitative methods
- Global and cross-cultural perspectives on modern human diversity, including an understanding of how modern humans and their anatomical and behavioral characteristics, including their technologies, spread around the globe and responded to diverse environmental and cultural challenges.

COURSE MECHANICS. This course requires attendance at both lecture and lab sections. Lab sections will cover new material, and expand on topics introduced in lecture. The textbook also explains many topics in greater detail than is possible during lecture. The following materials are required:

- (1) Stanford C, Allen JS, Anton SC. 2013. Biological Anthropology: The Natural History of Humankind. Pearson/Prentice Hall: New Jersey. 3rd Edition.
- (2) Anthropology 1001 Lab Manual – to be distributed in lab

OPTIONAL: A companion to the Stanford *et al.* (2013) textbook is "My Anthro Kit", a useful online study guide with chapter summaries, practice tests, flashcards, weblinks, and many enhancements to the textbook material to facilitate learning of the course material. Web access to "My Anthro Kit" is available at the GW Bookstore packaged with the textbook for an additional fee, or can be purchased separately at <http://www.myanthrokit.com/>. THIS IS OPTIONAL.

EVALUATION. Grades are based on exam performance and participation in lab. Three exams are scheduled for this course, each counting for 22% of the final grade (total = 66%). There will also be 8 pop quizzes given in class throughout the semester which will count for 9% of the grade (Each one is worth 1.5% of the grade, and only the top 6 scores will be counted). PLEASE NOTE: university policy forbids exams during the last week of class, so the third exam (of equal length and emphasis to Exams 1 and 2 and covering only the last third of the semester material) will be given during the final exam period on the officially scheduled date. We are not allowed to waive this rule

The remaining 25% of the final grade is based on attendance and participation in lab, including completion of laboratory exercises. The laboratory grade is calculated on the basis of the total number of points earned for each lab, as a percentage of the total number of possible points. All labs are worth the same number of points, with one exception. The 'Observing Living Primates' lab is worth twice as many points as each of the other individual labs. **Please come to lab on time; points will be deducted if you arrive late.**

MAKE-UP EXAMS. The dates for the exams are posted on the course schedule below. Make travel plans accordingly. Make-up exams may be scheduled in two circumstances... (1) If you must miss an exam due to an unavoidable conflict, such as observance of a religious holiday or participation in a school-sanctioned sport, **you must notify the course director as early as possible BEFORE the exam date, preferably by the third week of the semester.** (2) If you must miss an exam for an unforeseen medical reason or emergency, **you must notify the course director preferably BEFORE the time of the exam, by email or phone, and provide documentation of your illness as soon as possible thereafter.** The make-up exam must be taken *within one week* of the original exam date, except in rare circumstances. If the course director is not notified of a student's intention to miss an exam until *after* the exam has already been administered in class, the make up exam may be given in a different format.

LECTURES. While the lecture outline follows the text, the lectures will expand on the text and cover material that is not covered in the text. **You are responsible for all material presented in the lectures, whether or not it is covered in the text or the lab manual.**

LABORATORY EXERCISES. These are a critical element of this course, as they reinforce and expand on the topics covered in lecture and provide basic instruction in hypothesis testing, data collection and analysis in biological anthropology. In most cases, but not all, the lab follows a lecture on the same topic. **You will need to prepare for lab by doing the appropriate reading for that lab (see syllabus).**

MISSED LAB SECTIONS. The mechanics and pace of this course unfortunately do not allow for individually scheduled make-up labs. Further, fire code restrictions determine the occupancy limit for the laboratory sections. If you have an unavoidable conflict, you must see the instructor **well ahead of time** (at least one week in advance) in order to arrange attendance in an alternate lab section. You will **not** be allowed to attend a different lab section without advanced permission, as alternate spaces are very limited and will be allocated on a first-come, first-served basis.

If you must miss lab due to an unforeseen illness (including flu-like symptoms) or emergency, **notify both the course director and your laboratory instructor as soon as possible, preferably before the lab meets but in all cases by Monday of the week following the missed lab.** Documentation of your reason for missing the lab (e.g. a note from student health) may be required. For excused absences and if you have notified your lab instructor as required and provided written documentation of your illness or emergency, you will be given an opportunity to make up the missed laboratory content. Otherwise, unexcused absences from lab will result in a zero for that week. We also recommend that you ask a classmate to review their lab notes with them, since the lab material will be included on the exams.

RELIGIOUS HOLIDAYS. It is completely acceptable for you to miss lecture or lab, due to observance of religious holidays. However, it is your responsibility to look ahead on the calendar and notify the instructor of any conflicts for the entire semester with either the lab or the lecture no later than the **second week of class (September 9-11).**

BLACKBOARD. Once you are registered for this course, you will automatically have access to the Blackboard site associated with it. Go to <https://blackboard.gwu.edu/> and sign in using your email ID and password. We will use Blackboard to communicate announcements, store important documents and external links to web sites of interest that deal with material covered in the course, and provide a way for you to check your grades as the course progresses.

ACADEMIC INTEGRITY. All students are expected to know and adhere to the University's policies on academic integrity and academic dishonesty, the latter defined as cheating of any kind, including misrepresenting one's own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information. This includes use of materials found on the internet! Further information may be found at: <http://www.gwu.edu/~ntegrity/code.html>

SUPPORT FOR STUDENTS OUTSIDE OF THE CLASSROOM.

Disability Support Services (DSS). Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office at 202-994-8250 in the Marvin Center, Suite 242, to establish eligibility and to coordinate reasonable accommodations. Please do this well before the first exam. For additional information, please refer to <http://gwired.gwu.edu/dss/>.

University Counseling Center (UCC). The Counseling Center (UCC) offers 24/7 assistance and referral to address students' personal, social, career, and study skills problems. Services for students include: crisis and emergency mental health consultations; and confidential assessment, counseling services (individual and small group), and referrals. You can reach the UCC at 202-994-5300. For additional information, please refer to <http://gwired.gwu.edu/counsel/CounselingServices/AcademicSupportServices>

SECURITY.

In the case of emergency, if at all possible, the class should shelter in place. If the building that the class is in is affected, follow the evacuation procedures for the building. After the evacuation, seek shelter at a predetermined rendezvous location.

COURSE SCHEDULE (PLEASE NOTE: This schedule is subject to change.)

DATE	TOPIC	READINGS
August 26	Introduction: What is Biological Anthropology?	Introduction
August 28	History of Evolutionary Thought	Chapter 1
August 28-30	Lab 1: The ID-Evolution Debate & Scientific theory	Chapter 1
September 2	NO CLASS – LABOR DAY HOLIDAY	
September 4	Evolution by Natural Selection	Chapter 1
September 4-6	NO LAB MEETINGS	
September 9	Genetics: Cells and Molecules	Chapter 2
September 11	Genetics: from Genotype to Phenotype	Ch. 3, Appendix C
September 11-13	Lab 2: Cladistics and Introduction to Genetics	Chs 2-3, Appendix C
September 16	Forces of Evolution	Chapter 4
September 18	Formation of Species	Chapter 4
September 18-20	Lab 3: Inheritance and Population Genetics	Chapter 2-4, Appendix C
September 23	Human Variation	Chapter 5
September 27	Human Adaptation	Chapter 5
September 25-27	Lab 4: Race and Ancestry	Chapter 5
September 30	<u>EXAM 1</u>	Intro + Chapter 1-5
October 2	The Living Primates – Primate adaptive trends and diversity	Chapter 6
October 2-4	Lab 5: Primate Adaptations, Introduce Lab 6, Observing Living Primates, (Lab 6 due October 23-25 in lab)	Chapter 6-7
October 7	Primate diversity and behavior I: Group living	Chapter 7
October 9	Primate Behavior II: reproductive strategies	Chapter 7
October 9- 11	Lab 7: Osteometry of the Skull and Postcrania	Appendix B
October 14	Fossils in Geological Context	Chapter 8
October 16	Primate Origins and Evolution	Chapter 9
October 16-18	Lab 8: Forensic Skeletal Analysis	Chapter 18, Appendix B
October 21	Becoming Human: The Origins of the Hominin Clade	Chapter 10
October 23	Early hominins (the 'Australopiths')	Chapter 11
October 23-25	Lab 9: Primate Characteristics, Primate Evolution (Lab 6 due)	Chapters 8-9
October 28	The 'Robust Australopiths' and Reconstructing the Past	Chapter 11
October 30	Rise of the Genus <i>Homo</i>	Chapter 12
October 30- November 1	Lab 10: The Evolution of Human Locomotion) Introduce Lab 11 – Hall of Human Origins, due November 20-22 in lab)	Chapter 10-12
November 4	<u>EXAM 2</u>	Chapters 7-11, 18, Appendix B
November 6	Genus <i>Homo</i> – <i>Homo erectus</i>	Chapter 12
November 6-8	Lab 12: The Genus <i>Homo</i>	Chapters 11-13
November 11	Archaic humans and Neandertals	Chapter 13
November 13	Emergence and dispersal of modern humans	Chapter 14
November 13-15	Lab 13: Neandertals and Modern Humans	Chapters 13-14
November 18	Evolution of the Brain, Language and Behavior	Chapter 15, Appendix A
November 20	Evolution of the Human Life Cycle	Chapter 16
November 20-22	Lab 14: The Brain and Language (LAB #11 DUE)	Chapter 15, Appendix A
November 25	Biomedical anthropology	Chapter 16
November 27-29	NO CLASS OR LABS, THANKSGIVING HOLIDAY	
December 2	Evolution of Human Behavior	Chapter 17
December 4-6	TBA	
TBA	<u>EXAM 3</u>	Chapters 11-17, Appendix A