

Anthropology 1001 - Biological Anthropology
Prof. René Bobe
Fall 2012
CRN 30035 (4 CREDITS)

Lecture meets in Fungler Hall Room 108 - Mondays & Wednesdays 2:20 - 3:35 pm
Lab sections meet in 2020 K St NW Room 16

Course Instructor

René Bobe

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Office hours: T 2:00-3:00 pm, 2114 G St NW Room 307

Teaching Assistants

Jennifer Baker

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Lab sections: F 8:00-9:50 am, F 10:00-11:50 am

Office hours: M 10:30-12:30, 2112 G St Room 102

Rachel Bisaro

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Lab sections: R 4:00-5:50 pm, R 6:00-7:50 pm, R 8:00-9:50 pm

Office hours: T 1:00-2:00, 2110 G St Basement

Kate McGrath

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Lab sections: R 8:00-9:50 am, R 10:00-11:50 am

Office hours: T 2:00-4:00, 2114 G St Room 201

Vance Powell

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Lab sections: F 12:00-1:50 pm, F 2:00-3:50 pm

Office hours: M 3:40-4:40 W 1:00-2:00, 2114 G St Room 201

Cassandra Turcotte

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Lab sections: R 12:00-1:50 pm, R 2:00-3:50 pm

Office hours: F 11:00-12:00, 2114 G St Room 201

Kaitlin Wellens

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Lab Sections: W 6:00-7:50 pm, W 8:00-9:50 pm

Office Hours: M 10:00-12:00, 2114 G St Room 201

Course Description

Who are we and where did we come from? What makes us, as humans, different from other animals? In this course we 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 begins with discussion of natural selection, genetics and heredity. We 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 investigate the fossil record for human evolution and discuss what it tells us about the biology of our direct ancestors. We also explore how adaptations in modern human populations may account for current diversity in our species. Upon completion of this course, students will be prepared for more advanced coursework in biological anthropology.

Learning Objectives (Specific)

By the end of this semester, students will:

- Understand the evolutionary framework, theoretical concepts and biological principles that are fundamental to biological anthropology; appreciate how these ideas have developed over time, and ways in which evolutionary forces have shaped variation among modern human populations;

- Understand anatomical and behavioral diversity among nonhuman primates and the fossil evidence for their evolution, as it pertains to humans' place in nature;
- Learn the basic empirical evidence relevant to human evolutionary history and understand the bases for anatomical and behavioral adaptations in the human lineage over time.

Learning Objectives (General)

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 of this course, students will test hypotheses using data, scientific reasoning, and the application of quantitative methods.
- Global and cross-cultural perspectives, where modern human racial diversity and the spread of people and their technologies in prehistory are analyzed.

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.

Required Texts

- Stanford C, Allen JS, Anton SC. 2009. Biological Anthropology: The Natural History of Humankind. Pearson. 3rd Edition.
- Anthropology 1 Lab Manual – provided during the first lab section meeting

Evaluation

Grades are based on performance in exams and lab section. Three exams are scheduled for this course, each counting for 25% of the final grade (total = 75%). PLEASE NOTE: in accordance with university policy, the third exam will be given during the final exam period and not during the last week of the semester. 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 'Primate Behavior II' lab is worth twice the number of points as all 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, as follows. (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 prior to the exam date. (2) If you must miss an exam for an unforeseen medical reason or emergency, notify the course director as soon as possible. Documentation of your reason for missing the exam (e.g., a note from student health) is required. All make-up exams 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 essay format.

Missed Lab Sections

The mechanics and pace of this course 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 communicate with your 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. If you must miss lab due to an unforeseen excused absence, such as illness (including flu-like symptoms) or emergency, notify both the course director and your laboratory instructor as soon as possible, within 3 days of 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, 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 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 lab or lecture no later than the second week of class.

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 graded work must be completed in accordance with The George Washington University Code of Academic Integrity, available online: <http://www.gwu.edu/~ntegrity/code.html>

Support for Students Outside 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. 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		
DATE	TOPIC	READINGS
August 29	Introduction: What is Biological Anthropology?	Introduction (pp. 1-12)
September 3	Labor Day – No Classes	
September 5	History of Evolutionary Thought	Chapter 1
LAB 1	The ID-Evolution Debate & Scientific Theory	
September 10	Evolution by Natural Selection	Chapter 1
September 12	Genetics: Cells and Molecules	Chapter 2
LAB 2	Cladistics and Introduction to Genetics	
September 17	Genetics: From Genotype to Phenotype	Chapter 3
September 19	The Forces of Evolution	Chapter 4
LAB 3	Inheritance and Populations Genetics	Appendix C
September 24	Human Variation	Chapter 5
September 26	Human Adaptations	Chapter 5
LAB 4	Concepts of Race	
October 1	Review for Exam 1	
October 3	Exam 1	
LABS 5 & 6	Primate Behavior I & II	
October 8	Primate Diversity	Chapter 6
October 10	Primate Ecology	Chapter 6
LAB 7	Osteometry	Appendix B
October 15	Evolution of Primate Social Behavior	Chapter 7
October 17	Chimpanzees and Bonobos: our closest living relatives	Chapter 7
LAB 8	Forensic Skeletal Analysis	Chapter 18
October 22	Fossils and the Geological Time Scale	Chapter 8
October 24	Climate and Evolution	Chapter 8
LAB 9	Primate Adaptations & Evolution	
October 29	Primate Origins & Early Evolution	Chapter 9
October 31	Human Origins	Chapter 10
LABS 10 & 11	Human Locomotion and Evolution	
November 5	Review for Exam 2	
November 7	Exam 2	
LAB 12	The Genus Homo	
November 12	The record of early human evolution	Chapter 11
November 14	Origin and Evolution of the Genus <i>Homo</i>	Chapter 12
November 19	The Neanderthals	Chapter 13
November 21-23	Thanksgiving Holiday – No Class	
November 26	Modern Human Origins – Paleontology and Archeology	Chapter 14
November 28	Modern Human Origins – Genetic Evidence	Chapter 14
LAB 14	The Brain and Language	Appendix A
December 3	Evolution of the Brain and Language	Chapter 15
December 4	<i>Homo sapiens</i> in Evolutionary Perspective	Selections from Ch. 16-17
December 5	Review for Final Exam	
December 17	Final Exam at 3 pm (tentative date – subject to change)	

* PLEASE NOTE: This schedule is subject to change. In accord with university policy, the third exam will be given during the final exam period. A more detailed description of the lab sections schedule, assignments, and deadlines is provided separately.