

ANTH 270: INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY
Spring Quarter 2018
4 credit hours (satisfies an SC requirement)

Course Time (lecture): Tuesdays & Thursdays, 12pm to 1:20pm

Course Location (lecture): 242 GER

Instructor: Dr. Kirstin N. Sterner

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Office Hours: 9:30am to 11:30am on Thursdays and by appointment

Graduate Teaching Assistant (GE): Samantha Queeno

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Office Hours: 2pm to 3pm on Thursdays and by appointment

Course Description

Examines the biological aspects of the human species from comparative, ecological, and evolutionary perspectives. Explores theoretical and methodological issues in biological anthropology.

Course Content

This course provides a comprehensive introduction to biological (or physical) anthropology, in which we will explore the evolution of the human species and the nature of contemporary human variation. Principles of evolutionary theory and genetics will first be presented to provide a framework for the study of human evolutionary biology. The fossil evidence for human evolution will then be considered using comparative data from non-human primate behavior and ecology to help reconstruct prehistoric lifeways. Finally, the influence of environmental stressors (e.g., climate, nutrition, and disease) on modern human biological variation will be discussed. Particular attention will be given to how human populations have utilized biological and behavioral mechanisms to adapt to their environments throughout evolutionary history.

The course is designed to be both an introduction to biological anthropology for anthropology majors and an introduction to the field for non-majors. As one of the four subfields of anthropology (along with archaeology, cultural anthropology, and linguistic anthropology), biological anthropology is a critical component in the education of all students in the discipline. After successfully completing this course, students will be prepared to enter upper-level courses in biological anthropology.

Course Objectives

After successful completion of this course, students will have an understanding of the following key issues in biological anthropology:

- the basic principles of evolutionary biology and human genetics
- the similarities and differences between humans and mammal and primate species
- the major trends in hominin evolution, including the fossil and molecular evidence for the origin of modern humans

- the influence of genetic, ecological, and sociocultural factors on biological variation in contemporary human populations

Course Content

The course consists of lectures and required laboratory sections. The required laboratory sections are a critical part of the course and are designed to develop practical skills of observing, measuring, and interpreting data collected by biological anthropologists.

Canvas

A Canvas site will be maintained for this class, which will be your main source for course information, documents, and announcements. **Make sure that you regularly check your Canvas-linked e-mail account.**

Accommodations

Appropriate accommodations will be provided for students with documented disabilities. Please make arrangements to meet with me or your GE to discuss these accommodations as soon as possible.

Required Readings

- Jurmain R, Kilgore L, Trevathan W, Ciochon RL. 2017. Introduction to Physical Anthropology (15th edition), Thomson/Wadsworth. ***(Available at the Duckstore)***

Evaluation Criteria

Regular attendance at lectures and laboratory sections, as well as participation in laboratory activities, is required. Course readings are required and are essential to passing exams, completing lab assignments, and participating in lab section activities. Your grade in the course will reflect performance on: a quiz; written, in-class midterm and final exams; discussion section attendance; a lab practical; and a short write-up of 5 laboratory exercises.

Quiz (Week 3 Lab)	10%
Midterm Exam (Thursday, May 3rd)	25%
Final Exam (Thursday, June 14th)	25%
Lab Section Attendance & Participation	10%
Lab Practical/Quiz (Week 9 Lab)	10%
5 Lab Write-Ups	20%

The midterm and final exams will cover lectures, readings, videos, and lab section materials. Exams will include multiple choice, matching, and short answer (2-3 sentences) sections. **The final exam will emphasize material from the second half of the course.** Exams and assignments must be taken/turned in at the scheduled time - under **no circumstances will make-up exams or assignment extensions be given without a documented excuse.** If you will not be able to take an exam or turn in an assignment, you **must** notify me in advance (preferably by e-mail).

Material on the exams may be different than that presented in the textbook and may only be covered during class lecture and lab sections. Therefore, you are advised to arrange to get course notes if you miss a class. If you have questions after you have gone over the notes, please contact your GE or me.

Grading Statement

Grades will be assigned as follows: A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F < 60% (with minus and plus grades assigned at appropriate cutoffs).

- A+ Quality of student's performance significantly exceeds that of an A. Very few, if any, students receive this grade in a given course.
- A Outstanding performance relative to that required to meet course requirements; demonstrates both mastery of course content & coursework quality at the highest level.
- B Performance that is significantly above that required to meet course requirements; demonstrates both mastery of course content & coursework quality at a high level.
- C Performance that meets the course requirements in every respect; demonstrates adequate understanding of course content and coursework quality.
- D Performance that is at the minimal level necessary to pass the course but does not fully meet the course requirements; demonstrates marginal understanding of course content and coursework quality.
- F Performance in the course, for whatever reason, is unacceptable and does not meet the course requirements; demonstrates inadequate understanding of the course content and coursework quality.

Lab Schedule and Assignments

Week	Date	Lab Topic
1	Apr 4 th	Introduction to the Scientific Method & Evolutionary Biology
2	Apr 11 th	Genetics & Rules of Inheritance <u>(Week 1 Lab Write-Up Due)</u>
3	Apr 18 th	Quiz (covers everything from 4/3 to 4/17) <u>(Week 2 Lab Write-Up Due)</u>
4	Apr 25 th	Primate Adaptation & Classification <u>(Week 4 Lab Write-Up Due at the end of Class)</u>
5	May 2 nd	Midterm Review
6	May 9 th	Human Osteology
7	May 16 th	Ape/Human Differences & Early Hominins <u>(Week 6 Lab Write-Up Due)</u>
8	May 23 rd	<i>Homo</i> , Neandertals, & Modern Humans
9	May 30 th	<u>Lab Practical on the Human Skeleton & Fossils</u>
10	Jun 6 th	Contemporary Human Variation; Final Exam Review <u>(Week 8 Lab Write-Up Due)</u>

Lecture Schedule and Assignments

Week	Date	Topic	Required Reading
1	Apr 3 rd	Course Overview; Introduction to Anthropology; The Scientific Method	Ch. 1
	Apr 5 th	Evolution – History of an Idea	Ch. 2
2	Apr 10 th	Biological Basis of Life; The Inheritance of Traits & Basic Genetics	Ch. 3 & Ch. 4 (pg. 81-98)
	Apr 12 th	The Modern Evolutionary Synthesis	Ch. 4 (pg. 98-110)
3	Apr 17 th	Macroevolution and Systematics	Ch. 5
	Apr 19 th	Introduction to Primates	Ch. 6
4	Apr 24 th	Survey of the Living Primates	Ch. 6
	Apr 26 th	Primate Behavior & Ecology	Ch. 7
5	May 1 st	<i>Video: Life in the Trees</i>	Study!
	May 3 rd	<u>Midterm Exam (Covers material from Weeks 1 -5)</u>	
6	May 8 th	Paleoanthropology & The Fossil Record	Ch. 5 (pg. 121-133) & Ch. 9
	May 10 th	Introduction to Hominin Evolution & Bipedalism	Ch. 10 (pg. 287-293)
7	May 15 th	The Earliest Hominins; <i>Australopithecus</i> & <i>Paranthropus</i>	Ch. 10 (pg. 293-316)
	May 17 th	Origin & Evolution of the Genus <i>Homo</i> ; <i>Homo erectus</i>	Ch. 11
8	May 22 nd	Middle Pleistocene <i>Homo</i> and Neandertals	Ch. 12
	May 24 th	Origin & Dispersal of Modern Humans	Ch. 13
9	May 29 th	<i>Video: Are We Still Evolving</i>	Study!
	May 31 st	Contemporary Human Biological Variation (Part 1)	Ch. 14
10	Jun 5 th	Contemporary Human Biological Variation (Part 2)	Ch. 15
	Jun 7 th	New Frontiers in Research: Molecular Anthropology	
	Jun 14 th	<u>Final Exam from 8am to 10am in 242 GER (Covers material from Weeks 6 - 10)</u>	