

Introduction to Biological Anthropology

ANTH 1013 | M/W/F 10:45-11:35am | BELL 2282

Course Information

Biological anthropology is the scientific study of human biology within the framework of evolution. This course is divided into three parts. Each section of the course contributes to an overall understanding of human biological variation and human origins.

- <u>Part I</u> covers the basic principles of evolution and natural selection, as well as the fundamental genetics necessary for understanding the mechanics of inheritance.
- <u>Part II</u> presents an overview of non-human primates, introduces the variety of social systems found in non-human primates, presents an evolutionary framework for the study of social behavior in humans and other animals, and briefly reviews the fossil record for non-human primate evolution.
- <u>Part III</u> covers the fossil evidence for human evolution and the anatomical and genetic evidence for the origin of our species. In this section, we will also explore the origin of physical and genetic diversity within and between populations of extant humans, including concepts of race and ethnicity.

The course is designed to meet University and State standards as a core curriculum course. Each part of the course contributes to an overall understanding of the scientific method, human biology, and the process of evolution.

 \rightarrow <u>Students will receive independent grades for ANTH 1013</u> and ANTH 1011L.



YOUR INSTRUCTOR

Dr. Claire Terhune Assistant Professor Department of Anthropology

> Contact Information: <u>cterhune@uark.edu</u> (479) 575-3529 Old Main 334

Office Hours: Monday 2:00-3:00 pm and Tuesday 9:00 to 11:00am or by appointment



The purpose of anthropology is to make the world safe for human differences – Ruth Benedict

TEXTBOOK

Essentials of Physical Anthropology. 2016 (Third Edition). Clark Spencer Larson. W.W. Norton & Company, New York.

Courre Objectiver















1) Be able to identify the fundamental concepts unifying biology, specifically biological anthropology as a science

- •Learn that biological anthropology and its subdisciplines are the scientific study of humanity and human nature, including our closest relatives and the fossil record of the emergence of humanity.
- •Learn and understand the basic principles of evolutionary biology as the unifying concept of biology and biological anthropology, especially with regards to understanding the mechanisms of adaptation and patterns of common ancestry and descent.

2) Evaluate the credibility and use of scientific information.

• Learn how observations about the natural world apply to understanding the origins of humanity, human nature, and modern human diversity. This will include historical cases where scientific arguments were misapplied, how the rigorous application of the scientific method has altered models of human evolution, and identifying pseudo-scientific arguments about the nature of human variation and diversity.

3) Understand the fundamental principle of the evidence-based arguments to support conclusions.

• Evaluate the evidence for understanding human origins and diversity, and how such evidence supports or refutes arguments about human origins and the origins of human diversity.

4) Integrate and organize information, concepts, and applications relevant to more than one scientific disciple.

•Learn not just about evolution as the organizing principle of evolutionary biology, but also principles of geology, paleontology, behavioral ecology, and forensic science, and how information from these disciplines is integrated into developing and testing models for understanding human origins and diversity.

5) Be able to identify and describe the historical basis for issues related to diversity – specifically to concepts of race – and the biological reasons for challenging such constructs.

- •Learn about the historical development of concepts of race, especially within anthropology and the biological sciences. These historical concepts are then related to the systematization of racially based power structures and privilege in modern societies, such as the United States.
- Understand current arguments used to support racial classifications by group agents, and how such arguments are at odds with current data and models about the origins and significance of human diversity.
- Evaluate the data and the scientific basis for understanding diversity in modern humans, and understand why biological anthropologists no longer recognize race or racial distinctions as scientifically or biologically relevant or meaningful.



Course Requirements

EXAMS

- There will be three non-cumulative multiple choice exams held throughout the regular semester.
 A fourth cumulative final exam will be given during the final exam period. YOUR LOWEST OF THE FOUR EXAM SCORES WILL BE DROPPED.
- On exam days, students must bring their own scantron forms, and their university ID to sign the roster. The professor will retain the scantrons; however, students may see their scantron as soon as scores are posted on Blackboard.
- Several items are prohibited on exam days, including cell phones, tablets, electronic recording devices. Using one of these items at any point during the exam (including while handing in the exam) violates the University's Academic Honesty policy.

<u>No Make-Up Exams, No Exceptions.</u> If you miss an exam it is strongly recommended that you come by the Dr. Terhune's office to go over the exam so that you are prepared for the final. No extra credit is available.

CLASS ENGAGEMENT AND ATTENDANCE

Attendance and participation in class is strongly encouraged. To encourage engagement and to help students gauge their grasp on the course materials, there will be **six random attendance checks** spread across the semester. Each of these attendance checks will count for 2% of your grade, and one will be dropped; your attendance score will represent 10% of your total grade (i.e., 2% per check x 5 checks). Students must be present for at least half of the class period to receive attendance credit for that day. Students with university approved absences must provide documentation of this absence to the professor.

ONLINE QUIZZES

There will be three short mid-unit quizzes throughout the semester. Each quiz will represent 2% of your grade for a total of 6%. All three quizzes will be taken via Blackboard.

How do you succeed in this course?



Do attend class every day



DON'T forget to refer to the textbook



DO use your lab section to reinforce important concepts that are discussed in lecture



DON'T hesitate to visit Dr. Terhune's office hours if you have questions



DO learn the "language" of anthropology



DON'T wait until the last minute to study



Do be willing to go outside your comfort zone, especially when we discuss controversial topics such as race and evolution



DO calculate your grade so you know where you stand

Your final grade will be calculated from your exam and quiz performance, and attendance score. The percentages represented by each item are as follows:

Exams= 84% (top three scores only, lowest dropped, 28% per exam)Quizzes= 6% (three quizzes, 2% each)Attendance= 10% (2% per attendance record x six attendance checks with one dropped)

To calculate your final grade, use the following equation: Your grade= (highest exam * 0.28) + (second highest exam * 0.28) + (third highest exam * 0.28) + (quiz 1 * 0.02) + (quiz 2 * 0.02) + (quiz 3 * 0.02) + ((attendance score/5*100) * 0.1)

GRADING SCALE

>90%	89.9-80%	79.9-70%	69.9-60%	<60%	
А	В	С	D	E	

*Grades are earned, not given, and they are not rounded up

Several studies have shown that note-taking on laptops is less effective than taking notes by hand, in terms of learning and retention. Research has also demonstrated that students who take notes on laptops tend to write what the professor/slides say verbatim, which leads to less integration of information and shallower processing, compared to students who take notes by hand (Mueller & Oppenheimer, 2014; http://pss.sagepub.com/content/25/6/1159).



Technology Policy

The use of LAPTOPS, CELL PHONES, AND TABLET COMPUTERS is not permitted for any reason. This includes all of the following:

- Texting/ emailing/ using cell phones in any way
- Using cell phones to check the time
- Use of cell phones, tablets, or laptops to take notes

<u>Students violating this rule will be given one warning and thereafter will be asked to leave class</u> (and will not receive attendance credit for that day). Students with CEA accommodations may be exempt from this policy (depending on the nature of the accommodations), but any such students must speak directly with Dr. Terhune about this issue. If you have an emergency need to access your cell phone (illness, family/personal emergency, etc.) please see Dr. Terhune.



We are more alike, my friend, than we are unalike. – Maya Angelou





INCLUSION

A diverse representation of backgrounds and experiences is important for fostering an environment of critical thinking that is central to a university education. It is my expectation that everyone in ANTH 1013 will maintain respectful interactions with other students and instructors in this course. This includes respect for the variety of backgrounds and lived experiences, be they biological, cultural, and/or social, that everyone in this course brings. If at any point you feel disrespected in this class, please talk with me right away and I will do my best to address your concerns.

EDUCATIONAL ACCESS

University of Arkansas Academic Policy Series 1520.10 requires that students with disabilities are provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please verify your eligibility through the Center for Educational Access (see cea.uark.edu). If you are registered with CEA and require extra time for the exam, it is your responsibility to make an appointment with CEA. Your exam will be proctored by CEA staff at their testing center. Students with CEA accommodations are required to take their exams at the same time as those held in lecture, unless prior arrangements are made with the professor.





EMERGENCY PROCEDURES

Many types of emergencies can occur on campus; instructions for specific emergencies such as severe weather, active shooter, or fire can be found at <u>emergency.uark.edu</u>.

In case of violence and/or an active shooter, do the following:

- CALL- 9-1-1
- AVOID- If possible, self-evacuate to a safe area outside the building. Follow directions of police officers.
- DENY- Barricade the door with desk, chairs, bookcases or any items. Move to a place inside the room where you are not visible. Turn off the lights and remain quiet. Remain there until told by police it's safe.
- DEFEND- Use chairs, desks, cell phones or whatever is immediately available to distract and/or defend yourself and others from attack.



Academic Honesty

As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail.

Each University of Arkansas student is required to be familiar with and abide by the University's 'Academic Integrity Policy' at <u>www.honesty.uark.edu/policy</u>. Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor.

Violations of the Academic Integrity Policy will not be tolerated. All suspected violations will be submitted to and adjudicated by the Academic Integrity Monitor following the guidelines outlined at <u>www.honesty.uark.edu</u>.

NOTES:

This syllabus is subject to change at the discretion of the professor.

Class Schedule

Week	Day	Date	Lecture Topic	Reading	Assignments
1	Mon	1/14/19	Introduction to Biological Anthropology	Ch 1	
	Wed	1/16/19	What is Anthropology? The Scientific Method	Ch 1	
	Fri	1/18/19	History of Evolutionary Thought	Ch 2	
	Mon	1/21/19	MLK Day- NO CLASS	Ch 2	
2	Wed	1/23/19	History of Evolutionary Thought	Ch 2	
	Fri	1/25/19	History of Evolutionary Thought	Ch 2	
	Mon	1/28/19	Mendelian Inheritance & Cell Biology	Ch 2	E al l'anna
3	Wed	1/30/19	DNA Replication/ Protein synthesis	Ch 3	Evolutionary
	Fri	2/1/19	Evolutionary Synthesis	Ch 4	Theory Quiz
4	Mon	2/4/19	Evolutionary Synthesis	Ch 4	
	Wed	2/6/19	Evolutionary Synthesis	Ch 4	
	Fri	2/8/19	Human Biological Variation and Adaptation	Ch 5	
5	Mon	2/11/19	Human Biological Variation and Adaptation	Ch 5	
	Wed	2/13/19	Unit 1 Catch-up/ Summary		
	Fri	2/15/19	Unit 1 Exam		

Nothing in biology makes sense except in the light of evolution – Theodore Dobzhansky









Class Schedule

Week	Day	Date	Lecture Topic	Reading	Assignments
6	Mon	2/18/19	Growth and Development: Osteology and Bone Growth	Ch 5; Appendix: Skeleton	
	Wed	2/20/19	Osteology continued; Systematics	Appendix: Skeleton	
	Fri	2/22/19	Introduction to the Primates	Ch 6	
7	Mon	2/25/19	Survey of Living Primates: Lemurs and Lorises	Ch 6	
	Wed	2/27/19	Survey of Living Primates 2	Ch 6	
	Fri	3/1/19	Survey of Living Primates 3	Ch 6	
	Mon	3/4/19	Primate behavior 1	Ch 7	
8	Wed	3/6/19	Primate behavior 2	Ch 7	Primate
	Fri	3/8/19	Introduction to Geology and Overview of Primate Evolution	Ch 8	Behavior Quiz
	Mon	3/11/19	Primate Origins and Early Radiations	Ch 9	
9	Wed	3/13/19	Introduction to Human Origins: Miocene apes	Ch 9	
	Fri	3/15/19	Overview of the Primates	none	
10	Mon	3/18/19			
	Wed	3/20/19	Spring Break- No Class		
	Fri	3/22/19			
11	Mon	3/25/19	Unit 3 Catch-up/ Summary		
	Wed	3/27/19	Unit 2 E	xam	







Man

Class Schedule

Week	Day	Date	Lecture Topic	Reading	Assignments
11	Fri	3/29/19	Overview of Human Evolution	Ch 10	
12	Mon	4/1/19	What is a Hominin?	Ch 10	
	Wed	4/3/19	Earliest Hominins	Ch 10	
	Fri	4/5/19	Australopithecus	Ch 10	
13	Mon	4/8/19	Paranthropus	Ch 11	
	Wed	4/10/19	Origin of Genus Homo	Ch 11	
	Fri	4/12/19	Middle Pleistocene Hominins	Ch 12	
14	Mon	4/15/19	Neanderthals	Ch 12	
	Wed	4/17/19	Modern Human Origins: Anatomy	Ch 12	Early Hominins
	Fri	4/19/19	Modern Human Origins: Genetics		Quiz
15	Mon	4/22/19	The Peopling of the World	Ch 12	
	Wed	4/24/19	The Last 10,000 Years and Ongoing Evolution	Ch 13	
	Fri	4/26/19	Human Variation Revisited: Race, Racism, and Ethnicity	Ch 5	
16	Mon	4/29/19	Unit 3 Catch-up/ Summary		
	Wed	5/1/19	Unit 3 Exam		

Mon 5/6/19

FINAL EXAM (10:15am-12:15pm)



UNIT 3: HUMAN EVOLUTION