

ANTH 170: Introduction to Human Origins
Spring Term 2018
University of Oregon

Instructor: Dr. Stephen Frost
Office: Condon 353
Office Hours: MW 10:00-10:00 a.m.
Lecture Room: 150 Columbia

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Lecture Time: MW 12:00-1:20 p.m.

Lab Instructor: Ms. Hannah Wellman
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Office Hours: MW 10:30-11:30 a.m.
Lab Room: 368 Condon

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Lab Times: R 1:00- 1:50 p.m.
R 2:00- 2:50 p.m.
R 3:00- 3:50 p.m.
R 4:00- 4:50 p.m.

Lab Instructor: Ms. Aileen Fernandez
Office: Condon 369
Office Hours: W 10:00 a.m. - 12:00 p.m.
Lab Room: 368 Condon

Tel: 6-5109
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F 8:00- 8:50 a.m.
F 9:00- 9:50 a.m.
F 10:00-10:50 a.m.
F 11:00-11:50 a.m.

Lab Instructor: Ms. Kylen Gartland
Office: Condon 304
Office Hours: M 3:30 - 5:30 p.m.
Lab Room: 368 Condon

Tel: 6-5109
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Lab Times: F 1:00- 1:50 p.m.
F 2:00- 2:50 p.m.
F 3:00- 3:50 p.m.
F 4:00- 4:50 p.m.

Text: Jurmain R, Kilgore L, Trevathan W, Ciochon RL, Bartelink, EJ. 2017. *Introduction to Physical Anthropology*. Wadsworth.

Lab Manual: Frost SR. 2014. *Introduction to Human Origins Manual*. Kendall Hunt.

Overview: This course examines the broad and integrative field of human evolution. An understanding of the historical, theoretical, and empirical background of evolutionary biology is fundamental, and constitutes the first portion of this course. It then examines some of the basics of vertebrate, mammalian, and primate biology, so that the ways humans differ from our closest living relatives, the great apes, can be properly appreciated. Understanding geological time, dating of rocks and the fossils they contain, as well as the processes by which organisms become fossilized is necessary to place human evolution in its temporal and environmental context. With this foundation, the course investigates the evidence for human evolution from genetics, biogeography, comparative anatomy, archeology, and especially paleontology, in order to evaluate where, when, how, and (at least in part) why we humans have evolved to be the organisms that we are.

Goals:

1. Differentiate the forces of evolution and their effects on populations.
2. Compare human biology to that of other primates, mammals and vertebrates.
3. Describe the different types of primates and their biology.
4. Place vertebrate, mammalian, primate and human evolution in geological time.
5. Explain what fossils are and how they form.
6. Identify the bones of the human skeleton and interpret them functionally.
7. Describe where, when, and why humans evolved as we did.

Course Mechanics: This course includes both lecture and laboratory components. The lecture emphasizes background and theoretical concepts. The laboratory focuses on observation, measurement, and interpretation of the data of human evolution.

A Canvas site will be maintained for this class. When you register you will automatically be enrolled to the site. All problems concerning the use of Canvas will be handled at the ITC center in the Knight Library. The Canvas site will contain essential information for the course including the syllabus and lecture notes. In addition, the midterm will be taken through Canvas. Therefore, you must be able to use it. Lecture notes will be available several days prior to their scheduled date.

Requirements: Evaluation will consist of iclicker questions during lectures, weekly quizzes, cumulative final exam, packback participation, weekly laboratory exercises, and two laboratory practical exams. All assignments must be completed at their scheduled times: **UNDER NO CIRCUMSTANCES WILL MAKE-UPS BE GIVEN** without a documented excuse (i.e. a signed note from your doctor or student health services, or a conflicting University obligation verified by student services). If you will not be able to take an exam, you must notify your GE in advance. Notification should be via email.

iClickers will be used during lectures, beginning during the first lecture of week 2. Therefore you must have an iclicker remote and register it before then. Be sure to set your *frequency code* to "AB". You can register your iClicker remote on the Canvas page by navigating to the "i>Clicker" link, clicking on "remote registration" and then following the instructions. See here for more information:

https://canvas.uoregon.edu/courses/26168/pages/enabling-browser-cookies-and-registering-i%3Eclickers?module_item_id=108448

Beginning with the 3rd lecture, there will always be one question at the beginning of class that focuses on the content of that lecture. Credit for this first question is entirely based on participation, you don't need to get the correct answer. There will also be at least one more question closer to the end of the lecture based on that day's content. For these questions, you will receive partial credit for just for answering and full credit for giving the correct answer. You can drop all questions from one lecture during the course. If you have any trouble with your iClicker remote, registering it, or using it in this class, please contact UO Canvas Support here: LMS-support@ithelp.uoregon.edu

Packback questions are a requirement for this course. This is an online community where you will ask and answer questions about the different topics covered in this class and how they relate to the real world. In order to receive credit you must post *1 question and 2 answers per week*, due each Sunday at 11:59 p.m. beginning Sunday April 15. Before you start posting, be sure to read the Community Guidelines found in

the tutorial on Packback. If your post doesn't follow the Packback Community Guidelines, there is a chance it will be removed and you won't receive points for that post. See Canvas for more details.

Midterm exam is taken remotely through Canvas on your own time outside of class. *It will be due Sunday May 6th by 11:59 pm.* It will be available beginning the afternoon of Wednesday May 2nd at 5:00 pm. You will be limited to eighty minutes to complete it. The midterm is multiple choice and open book.

Final exam will be in class, multiple choice format, taken on scantron. It will be comprehensive, closed book, and draw heavily from the quiz questions.

Laboratory exercises are to be read before attending your lab section for the week. Lab time is valuable and your only chance to prepare for the practical exams. You need to arrive prepared, knowing what you need to do. Don't just complete the exercises, but be sure you know all the material before you leave. Your lab instructor will collect them on a regular basis, and grade them for completion only.

Laboratory practical exams will consist of a series of stations with specimens that must be studied in a prescribed period of time. Students who miss scheduled labs and practical exams will not be able to make them up as laboratory content requires considerable setup and curatorial effort.

The weight of each form of evaluation to the total course grade is as follows:

iClicker Questions:	10%
Packback Participation:	10%
Midterm Exam:	15%
Lecture Final Exam:	25%
Lab Exercises:	10%
Lab Practical Exam I:	15%
Lab Practical Exam II:	15%

Grades will be assigned as follows: A = 90-100%, B = 80-89%, C = 70-69%, D = 60-69%, F < 60%, with +'s representing the top 3% and -'s the bottom 3% of each letter.

ADA Statement: Students with documented disabilities who may need accommodations, who have any emergency medical information the instructor should know of, or who need special arrangements in the event of evacuation, should make an appointment with the instructor as early as possible, no later than the first week of the term. Students may also wish to contact UO Disability Services Office at 541-346-1155. NOTE: As per FERPA regulations Faculty are no longer automatically informed as to the ADA status of students. If you have special requirements, you must bring your information to me as soon as possible.

Equal Opportunity Compliance Statement: It is the policy of the University of Oregon Board of Directors that there will be no discrimination or harassment on the basis of age, disability, gender, marital status, national origin, race, religion, sexual orientation, or veteran status in any educational programs, activities or employment. Persons having questions about equal opportunity and non-discrimination should contact the Office of Affirmative Action at 541-346-3123.

Schedule: Following is a schedule of lecture and lab topics. All readings are from the text, and intended to provide background for the lectures. Material in the lectures is often different from that given in the assigned reading, and many lecture topics are not covered in the textbook or are poorly represented. Thus, the book is to serve as a background and reference, but does not duplicate the lectures.

Week	Dates	Class	Reading
Week 1	4/2	Lecture 1: History of Evolutionary Theory	Chapter 2
	4/4	Lecture 2: Inheritance, Cell Structure & Division LAB I: Mendelian Genetics	Chapter 4: pp. 81-97; Chapter 3: pp. 50-51; 64-78
Week 2	4/9	Lecture 3: DNA and Protein Synthesis – iClicker Required	Chapter 3: pp. 51-64
	4/11	Lecture 4: Population Genetics LAB II: DNA structure and Protein Synthesis	Chapter 4: pp. 98-110
	4/15	First Packback Posts Due 11:59 p.m.	
Week 3	4/16	Lecture 5: Forces of Evolution	Same as previous
	4/18	Lecture 6: Macroevolution and Classification LAB III: Population Genetics	Chapter 5: pp. 113-128; 136-139
Week 4	4/23	Lecture 7: Primate Biology	Chapter 5: pp. 128-136; Chapter 6: pp. 143-154
	4/25	Lecture 8: Survey of Living Primates LAB IV: Human Osteology	Chapter 6: pp. 155-182
Week 5	4/30	Lecture 9: The fossil record: Geochronology and Taphonomy	Chapter 5: pp. 128-130; Chapter 9: pp. 272-276
	5/2	Lecture 10: Primate Evolution LAB V: Primate Classification	Chapter 8: pp. 225-245
	5/6	Midterm Due 11:59 p.m.	
Week 6	5/7	Lecture 11: Hominoid Evolution	Chapter 8: pp. 245-261
	5/9	Lecture 12: Bipedalism and Earliest Hominids LAB VI: Practical examination I	Chapter 9, Chapter 10: pp. 287-297
Week 7	5/14	Lecture 13: <i>Ardipithecus ramidus</i>	Same as previous
	5/16	Lecture 14: <i>Australopithecus</i> LAB VII: Bipedalism	Chapter 10: pp. 297-309
Week 8	5/21	Lecture 15: <i>Paranthropus</i>	Same as previous
	5/23	Lecture 16: Earliest <i>Homo</i> LAB VIII: Plio-Pleistocene Hominids	Chapter 10: pp. 310-316
Week 9	5/28	Lecture 17: Memorial Day – No Class	
	5/30	Lecture 18: <i>Homo erectus</i> LAB IX: Later Genus <i>Homo</i>	Chapter 11
Week 10	6/4	Lecture 19: Later <i>Homo</i>	Chapter 12
	6/6	Lecture 20: Modern Human Origins LAB X: Practical examination II	Chapter 13
Finals	6/15	Final Examination 10:15 a.m.	