**Anthropology 1300**  
**Human Evolution**  
**Distance Learning, Winter Session**  
**3-week session, 3 credits**

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**Course Description:** The evolution of humankind is explored through the fossil record, studies of the biological differences among current human populations, and a comparison with our closest relatives, the primates. This course investigates the roots of human biology and behavior with an evolutionary framework.

**Introductory Information:** Feel free to email at any time. Once the class starts, I'll be checking several times a day. And since this course moves quickly, let me know right away if something is not working on Blackboard so I can get the tech people right on it.

*It is very important that you have web/computer access at all times during the course.* If you are traveling, make sure you can logon wherever you are. There is really no down time since this course runs quickly, and I won’t accept any excuses for not being able to do the work or hand in essay questions and prelims on time.

*It is very important that you check your Cornell email every day.* I usually communicate with students by email and sometimes this information is critical for the course.

Please read this syllabus and the other information document, Lecture/Reading Schedule, thoroughly and consult them over the span of the course if you are not sure of requirements and due dates.

This course is conducted on Blackboard. You are automatically enrolled in our Blackboard once you have completed the registration process. The course unlocks a few days before the course begins.

The course is organized by week, and each week covers one aspect of human evolution. The primary folder for each week unlocks as we go along, and within each of those weeks you will find folders for the lectures, reading essay questions, and external links for that week. Prelims are at the bottom of the...
week’s work and they unlock three days before they are due (more explanation below).

**Trouble with Blackboard?** When students experience trouble opening Blackboard, the lectures, or if the lectures have no sound, the first thing to do is try another browser, then another computer. These actions usually fix the problem. If not, contact me, the TA, and CIT (Cornell Information Technologies, the Cornell tech people).

https://it.cornell.edu/support

The CIT helpline is always good but not open nights or weekends: 607-255-8990

**Our Class:** Please send me (by email) a small photograph of yourself and a few sentences about you. They will be uploaded to the “Our Class” file in Course Information so that everyone can see their classmates as if we were all in the same room.

**Netiquette:** All emails to and from me or the TA are to be conducted in a professional academic manner. That is, we will all address each other as if we were in the classroom. The correct way to address me is Professor Small. With the TA you can use his or her first name. We will generally write to you by your first name.

I tend to write to my students, and everyone, without the “Dear ….” because I do a lot of emailing, so feel free to write to me in the same way. In other words, you don’t need to contextualize your email with hellos and goodbyes or other comments and don’t be insulted when I answer your questions in the same way. Think of our email exchanges as if you were walking up to me after class and asking a question.

Please respect the thoughts and writings of others during discussions. We learn from each other during discussion and the only way to do that is read closely and digest what others have to say.

The TA and I do ask that you include in the subject line or in the body of the email the number of the course, as in ANT1300, since we are sometimes teaching more than one course at a time and this way we can answer your questions more efficiently.

You will have a chance to provide an anonymous evaluation of the course at the end but if you have problems or comments you can always email them directly to me.
And by all means, feel free to ask me general questions about anthropology, specific areas of focus in the course, ideas you might have about these subjects, or write to me about articles you have read online or elsewhere that pertain to the course. I have always encouraged students to do this in the classroom and have learned a lot from these questions or comments, so don’t hesitate to share your thoughts or perspectives on issues in the course.

**Required Readings:**

Books can be purchased at Amazon and other books sites or checked out from a local or university library.

Olson, S. 2003 *Mapping Human History*.

Wrangham, R. 2010 *Catching Fire; How Cooking Made Us Human*.

dewaal, F. 2005 *Our Inner Ape*.

These required readings are not text books but meant to provoke thoughts about what it means to be human. You will be reading one book per week (and they are trade books so enjoyable to read) and answering one essay question per week that pertains to the readings (see the document Lecture/Reading Schedule) which is also online in the folder “Course Information.”

**Course Requirements:**

1) **Prelims:** There are three exams for this course. Each is worth 40 points (120 points total). The prelims will be available to you online Tuesday each week and are due by noon (EST) the following Friday. By definition, prelims are “open book.”

Prelim #1 consist of one page of skeleton identification, 10 fill-in-the-blanks based on the provided human skeleton illustration (10 points) and 6 short answer questions worth 5 points each (30 points). Prelims #2 and #3 consist of 8 short answer questions that are worth 5 points each (40 points).

Some “short answer” questions can be answered with a bullet list while others might need more explanation. It is always a good idea when answering a written exam (that is, not a multiple-choice exam) to put in as much as you know rather than leave parts out. The questions have been designed for specific answers with specific information and they closely follow both the lectures and the weekly expectations/objectives.

2) **Reading Essay Questions:** You will also be required to answer ONE Reading Essay Question for each week of the course. The essay questions (listed in the
folder ("Reading Essay Questions" under each week) are based on the required book for that week. You choose **ONE** from the list. The answers should not exceed **one double spaced page**, and each is worth 10 points (30 points total). Each question is **due the date of the corresponding prelim, that is, each Friday (EST)**.

Grades for the weekly Reading Essay Questions will be based on the following:
1. A clear and concise statement of the idea, argument, thesis or point to which the essay question refers (4 points).  
2. Support your answer with evidence from the specific reading (4 points)  
3. Writing style including organization, grammar, and clear style (2). Please note that in this type of academic or scientific writing your opinion is not necessarily appropriate. You are answering a specific question about the work of others and demonstrating that you have read the book.

3) Discussion: Each week contains a Discussion Forum where I will be posting discussion threads. Students are encouraged to participate by adding comments or questions and to monitor this forum as the week goes along. The discussion forum is an important arena for hearing about ideas and questions that your fellow students might have. I will also be monitoring those threads and responding, moving the discussion forward. Or adding new threads as each week progresses. You can also use this forum to ask specific or general questions about the readings or the lecture materials.

4) External Links: These links are provided to enhance the online experience with videos, podcasts, and newspaper or magazine articles. You are not graded on these links but they will provide a current context for the material and how it pertains to modern life.

**Total points for course:** Overall class point total of 120 for prelims + 30 for essay questions = 150 points.

**Special Note:** All prelims and discussions should be in WORD format (not pdf’s because we cannot grade them) and sent to our TA xxxxxx. Please label each file with your last name first, then the class, then the assignment as in Small1300prelim1.

**When Everything is Due:**

**Prelim #1 is available Tuesday, January 1 at noon. Prelim #1 and Reading Essay Question #1 are DUE BY NOON (EST) Friday January 4.**

**Prelim #2 is available Tuesday, January 8, at noon. Prelim #2 and Reading Essay Question #2 are DUE BY NOON (EST) on Friday January 11.**

**Prelim #3 is available Tuesday, January 15, at noon. Prelim #3 and Reading**
Essay Question #3 are DUE BY NOON (EST) on Friday January 18.

Here Are Details On How The Course Works:

1) When you log onto Blackboard there might be an announcement from me. So, look at that first. Click on "Course Announcements."

2) Then, click on the "Course Information" and see the syllabus and other materials.

3) When the first week is unlocked (by the designated date and time), and you are ready to work, click on "Course Documents." This is the most important section of Blackboard for us. You will see folders for Week 1, 2 and 3.

4) The folder of each week is timed to open on Fridays at noon (Dec 28, Jan 4, Jan 11). Note that although the course officially begins Wednesday December 26th, the folder for working Week 1 won't unlock until Friday December 28th. That give you time to test Blackboard and send me your foto for our virtual classroom.

6) You go at your own pace during the week, except for the due dates and times for turning in Prelims and the weekly Reading Essay Questions. Both are due on Fridays, by noon, Eastern Standard Time. I do not accept late prelims or essay questions.

7) When you click on a lecture during the week, it should pop right up. If not, let me know. Also, the lectures have audio. It's a small icon of a speaker at the bottom right of the screen. If you don't hear my voice, click on it.

8) Also look at external links. And I might be adding more external links as we go. If you come across something that pertains to the class, let me know and I'll add it.

9) Each week you can go at your own pace, but there are a few deadlines. Prelims are unlocked the Tuesday at noon of each week and due on Friday by noon (EST). You will also be writing ONE PAGE answers to ONE of the Reading Essay Questions each week. They will also be due by Friday at noon EST.

10) Everything submitted by you will be graded, with comments, and sent back to you by email. Send only WORD documents since we cannot grade pdfs and will have to send them back to you and have you change them into Word docx.

IMPORTANT: If you don't know how to look at comments on returned work, you will be getting to know "track changes." Under the navibar go to "Review." On that Reviewing toolbar, click on the box that says "track changes" to “on.” Little
orange or blue boxes will pop up outside the right margins with comments and number grades. Also, you might see some editing in text.

11) Please send in your work ID’d in the document name with your last name, the course number, and the type of work, such as “SmallANT1300Prelim1”

**University Policies**

It is Cornell policy to provide reasonable accommodations to students who have a documented disability (e.g. physical, learning, psychiatric, vision, hearing, or systemic) that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities are encouraged to contact Student Disability Services and their instructors for a confidential discussion of their individual need for academic accommodations. Student Disability Services is located in 420 CCC. Staff can be reached by calling 607-254-4545.

**Links:**

Students with disability are encouraged to contact the [Cornell University Disability Services](mailto:sds_cu@cornell.edu), email sds_cu@cornell.edu, phone 607-254-4545

Technical Issues with Blackboard: CIT [http://www.it.cornell.edu/support/](http://www.it.cornell.edu/support/) and the hotline 607-255-5500

Writing Help (although they are not open during winter break or during summer): [Knight Institute Writing Walk-In Service](http://www.it.cornell.edu/support/)

Continuing Education issues: [Cornell Continuing Education](http://www.it.cornell.edu/support/) and phone 606-255-9697
Week 1

What is a human and how has our species evolved? What is unique or not unique about humans? What is the place of humans among other primates? We look at the human skeleton, our genetic make-up, and how we adapted to various climates across the globe.

**Week 1 Lectures:** You will view 6 lectures. Please note that the first slide of each of lectures 4, 5, and 6 for every week are titled differently but ignore that. This course is an adaptation of the summer version of ANT1300 which lasts 6 weeks and so in winter you cover two weeks of lectures every week. It is difficult to change the first slide so don’t get mixed up about this. Just watch the lectures in the order in which they are listed.

- Week 1 Lecture 1: Humans as Animals
- Week 1 Lecture 2: Evolution
- Week 1 Lecture 3: Humans as Primates
- Week 1 Lecture 4: The Human Skeleton
- Week 1 Lecture 5: Anthropological Genetics
- Week 1 Lecture 6: Human Variation

**Week 1 Reading:** Read Mapping Human Nature by Steve Olson.

**Week 1 Readings Essay Questions (in folder online):** Answer one Readings Essay Question in one double spaced page and submit it to the TA by Friday January 4 at noon (EST).

**Week 1 External Links:** These links are articles and videos to enhance your experience of the subjects covered each week. If you find something interesting in the news or in some other reliable source, pass it along to me and I’ll post it for the class.

**Week 1 Discussion:** Look at the Discussion Threads and comment. I’ll be checking these several times a day and adding my comments.
**Week 1 Prelim:** Prelim #1 unlocks Tuesday Jan 1 at noon. Submit it to the TA by Friday January 4 at noon (EST). Note that you use the Human Skeleton pdf to fill in the first page of the prelim.

**Week 1 Learning Expectations and Outcomes:**

- Be able to answer the questions, “What is a human?”
- Define evolution and the major correlates of evolution.
- Explain the evidence for evolution.
- Understand the evolutionary process, including the two-step process.
- Describe the trends that define the primate order.
- Describe primate taxonomy and the major primate groups.
- Identify the bones of the human skeleton including the skull.
- Define bone tissue, how bones function, how bone is formed, and what the human skeleton tells us about being human.
- Explain Reproductive Success, Fitness, and how genes are passed down.
- Describe and explain the forces of evolution including mutation, non-random mating, migration (gene flow), genetic drift, and natural selection.
- Explain what a population is to anthropological geneticists.
- Be able to explain the Hardy-Weinburg Equation and why it is important to population geneticists.
- Understand that there are no biological human races and that race is socially constructed for social and political reasons.
- Understand the difference is between genotype and phenotype.
- Explain why anthropologists have studied blood groups.
- Explain the concept of “adaptive value.”
- Be able to define and explain in detail, from genes to disease, the sickle cell trait and why it is considered a balanced polymorphism.

**Week 2**

Our fossil heritage including ancient primates, the Australopithecines, the beginning of our genus, and the various forms of *Homo sapiens* up to fully modern humans. We also consider the evolution of the particularly human traits of big brains and walking on two feet, address the beginnings of culture.

**Week 2 Lectures:**

- Week 2 Lecture 1: Early Primate Ancestors
- Week 2 Lecture 2: Early Australopithecines
- Week 2 Lecture 3: The Age of Australopithecines
- Week 2 Lecture 4: We Get Big Brains
Week 2 Lecture 5: We Become Ourselves
Week 2 Lecture 6: Who Are We?

**Week 2 Reading:** Read *Catching Fire*, by Richard Wrangham

**Week 2 Readings Essay Questions (in folder online):** Answer one Readings Essay Question in one double spaced page and submit it to the TA by Friday January 11 by noon (EST).

**Week 2 Discussion:** Add to discussion threads.

**Week 2 External Links:** These links are articles and videos to enhance your experience of the subjects covered each week. If you find something interesting in the news or in some other reliable source, pass it along to me and I’ll post it for the class.

**Week 2 Prelim:** Prelim #2 unlocks Tuesday January 8 at noon. Submit it to the TA by Friday January 11 at noon (EST).

**Week 2 Learning Expectations and Outcomes:**

• Terms to know: bilophodont vs. Y-5 molars, molar cusp shape, interlocking canines, diastema, U, V and parabolic tooth arches
  • Know the three ways we find fossils.
  • Explain the Law of Sedimentation.
  • Understand the difference between relative and absolute dates and give examples.
  • Describe how fossils become fossils.
  • Describe the traits of homiotherms.
  • Explain what is evolutionarily advantageous in being a mammal.
  • Know the geological eras and their dates: PEOMPP
  • Explain why the fossil Ida is important to the story of human evolution.
  • Describe which traits begin to define the primate order in evolutionary history.
  • Describe which Eocene primate is more important to the history of human evolution, Adapids or Omomyids, and why (describe their characteristics).
  • Why is the Fayum such an important site to the story of human evolution?
  • Describe Aegyptopithecus and why that fossil is important.
  • Name and describe the two types of Miocene apes.
• Give details about Ramapiths and which species might be most important to the human story.
• Describe the ecology of Africa 5 million years ago.
• Explain what a Hominid is.
• Terms to know: bipedalism, foramen magnum, sagittal crest, occipital crest, flared zygomatic arches, post-orbital constriction, transverse arch of the foot
• Know why the Rift Valley of East Africa is so important to the human story.
• Describe Australopithecus ramadis and A. anamensis and their position on the human evolutionary tree.
• Describe A. afarensis including where it has been found, what it looked like, what it was probably eating, and how it moved about.
• Be able to explain the difference between South Africa and East Africa in terms of the hominin story.
• Explain, with examples, the difference between gracile and robust Australopithecines
• Define, using traits, A. africanus, A. robustus, and A. boisei
• Describe the general traits of Australopithecines (cranial, dental, post-cranial) and why this stage of hominid evolution is meaningful.
• Describe the characteristics of Homo habilis and explain why this stage of hominid evolution is significant.
• Understand why the production of tools is a major step in hominid evolution.
• Describe the tools of H. habilis and H. erectus.
• Describe H. erectus, where it has been found and what is most important about this fossil stage.
• Compare the two models that might explain the migration of humans out of Africa, the Out of Africa Hypothesis and the Multiregional Hypothesis.
• What is the relationship of H. sapiens neanderthalensis to fully modern humans, H. sapiens sapiens, and why is this a controversial issue.
• Describe the Upper Paleolithic in terms of tools and artistry.
• Describe what happened anatomically when hominid began to walk upright.
• What are the possible theories about the evolution of bipedalism in humans?
• Why did humans evolve such large and complex brains? What are the advantages?
• What is the evolved human mating and social system?
• Understand we all come from Africa

**Week 3**

The anthropology of nonhuman primates and why monkeys and apes matter when thinking about human behavior. Mating and socializing among primates. What do these animals have to tell us about being human?

**Week 3 Lectures:**
Week 3 Lecture 1: Primate Ecology
Week 3 Lecture 2: Primate Social Systems
Week 3 Lecture 3: Primate Communication
Week 3 Lecture 4: Mating and Reproduction
Week 3 Lecture 5: Chimpanzees and Bonobos
Week 3 Lecture 6: The Evolution of Human Behavior

Week 3 Reading: Read *Our Inner Ape* by Frans deWaal

Week 3 Readings Essay Questions (in folder online): Answer one Readings Essay Question in one double spaced page and submit it to the TA by Friday January 18 at noon (EST).

Week 3 Discussion: Add to discussion threads.

Week 3 External Links: These links are articles and videos to enhance your experience of the subjects covered each week. If you find something interesting in the news or in some other reliable source, pass it along to me and I'll post it for the class.

Week 3 Prelim: Prelim #3 unlocks on Tuesday January 15. Submit it to the TA by Friday January 18 at noon (EST).

Week 3 Learning Expectations and Outcomes:

- What is an ecosystem and why is understanding primate ecology important to understanding who we are?
- Describe the 5 parameters used to analyze how primates manage their life course in a particular environment.
- What are the elements of food and what is the most difficult to find for primates?
- What do various primates eat and how does this effect their group size and interactions? Define the groups by the food they eat most.
- List the debits and credit to the game of eating and explain what is the ultimate payoff.
- Define the term social system and be able to describe the characteristics of a social system.
• Explain how primatologists figure out why a certain social system evolved. Understand that we start with females and then males are layered on top of the female distribution.
• List the advantages and disadvantages to being in a social group.
• Describe the various types of social groupings of primates and give examples.
• Explain why non-human primate communication is useful for understanding how humans communicate.
• List the potential evolutionary costs and benefits of giving a signal.
• Be able to explain the various types of communication seen in primates and give examples.
• Define sexual selection and two kinds of sexual selection.
• Explain the possible function of perineal swellings that appear on some primate females.
• Explain why does male reproductive success varies more than female reproductive success.
• Name the types of mating systems found in nonhuman primates.
• Be able to compare chimpanzees (*Pan trogodytes*) and bonobos (*Pan paniscus*) in their physical characteristics, social systems, and behaviors.

Why are these nonhuman primates especially important to understanding the evolution of human behavior?
• Compare the tool use, hunting, and culture of chimpanzee and humans.
• Are humans unique? Isn't every species unique?
• Given what you have learned in this course, explain what a human is.