ANTH 153: Human Origins Spring 2014

Monday Wednesday Friday 10:20-11:20 AM Asbury Hall 007

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Office Hours: 2:30-4 PM Monday and Thursday or by appointment.

COURSE DESCRIPTION

An introduction to physical anthropology and archaeology, showing how biology and culture enable humankind to survive in many different environments. Topics discussed include primate behavior, fossil humans, tools and society, and the relationships between biology and human behavior. May not be taken pass/fail.

COURSE TEXTBOOKS

Charlesworth, Brian and Deborah Charlesworth

2003 Evolution: A Very Short Introduction. London: Oxford University Press.

Stringer, Chris and Peter Andrews

2012 The Complete World of Human Evolution. 2nd Edition. London: Thames and Hudson.

All other assigned readings will be posted as pdfs in Moodle or placed on reserve in the library.

SUMMARY OF ASSIGNMENT DUE DATES, QUIZZES, AND TESTS

- 1/31: Moodle reading quiz #1 due
- 2/7: Moodle reading quiz #2 due
- 2/14: Moodle reading quiz #3 due
- 2/14: Student Presentation and Discussion Day (if you're presenting, reflection paper is due)
- 2/21: Moodle reading quiz #4 due
- 2/24: Exam #1
- 2/28: Moodle reading quiz #5 due
- 3/7: Moodle reading quiz #6 due
- 3/10: Lab write-up #1 due
- 3/10: Student Presentation Day (if you're presenting, reflection paper is due)
- 3/14: Moodle reading quiz #7 due
- 3/14: Student Presentation and Discussion Day (if you're presenting, reflection paper is due)
- 3/21: Moodle reading quiz #8 due
- 3/21: Research paper proposal and annotated bibliography (5 source minimum) due
- 3/31: Lab write-up #2 due
- 4/2: Student Presentation and Discussion Day (if you're presenting, reflection paper is due)
- 4/4: Moodle reading quiz #9 due
- 4/7: Exam #2
- 4/11: Moodle reading quiz #10 due
- 4/14: Research paper outline due
- 4/18: Moodle reading quiz #11 due
- 4/18: Student Presentation and Discussion Day (if you're presenting, reflection paper is due)
- 4/21: Student Presentation and Discussion Day (if you're presenting, reflection paper is due)
- 4/25: Moodle reading quiz #12 due
- 4/25: Rough draft of research paper due
- 5/1: Moodle reading quiz #13 due
- 5/9: Moodle reading quiz #14 due
- 5/9: Final research paper due
- 5/13: Final Exam

CLASS SCHEDULE AND READINGS

Monday, 1/27: Course Introduction and Overview of Expectations and Goals

Wednesday, 1/29: What is Archaeology? What is Physical Anthropology?

Sebastian, Lynne

2003 The Awful Truth about Archaeology. The SAA Archaeological Record 3(2):35-37.

Stromberg, Joseph

2013 Starving Settlers in Jamestown Colony Resorted to Cannibalism.

http://www.smithsonianmag.com/history/starving-settlers-in-jamestown-colony-resorted-to-cannibalism-46000815/

THEME 1: HOW EVOLUTION WORKS

Friday, 1/31: What is Science? What is Evolution?

Tattersall, Ian

2002 What's So Special about Science? *In* The Monkey in the Mirror: Essays on the Science of What Makes Us Human. Pp. 1-28. New York: Harcourt.

Charlesworth, Brian and Deborah Charlesworth

2003 The Processes of Evolution. *In* Evolution: A Very Short Introduction. Pp. 4-10. London: Oxford University Press.

Moodle reading quiz #1 due before class

Monday, 2/3: How Evolution Works

Charlesworth, Brian and Deborah Charlesworth

2003 Adaptation and Natural Selection. *In* Evolution: A Very Short Introduction. Pp.

60-89. London: Oxford University Press.

<u>In-Class Film:</u> Charles Darwin and the Tree of Life (excerpt)

Monday 2/3 – Last day of adjustment period

Wednesday, 2/5: Evolution in Action

Charlesworth, Brian and Deborah Charlesworth

2003 The Formation and Divergence of Species. *In* Evolution: A Very Short Introduction. Pp. 90-109. London: Oxford University Press.

Weiner, Jonathan

2005 Evolution in Action. Natural History 114(9):47-51.

Friday, 2/7: The Evidence for Evolution

Quammen, David

2004 Was Darwin Wrong? National Geographic 206(5):2-31.

Moodle reading quiz #2 due before class

THEME 2: OUR CLOSEST LIVING RELATIVES

Monday, 2/10: What are Primates?

Larsen, Clark Spencer

2014 Biology in the Present: Other Living Primates (excerpt). *In* Our Origins: Discovering Physical Anthropology. 3rd edition. Pp. 157-171. New York: W.W. Norton & Co.

<u>In-Class Film:</u> Jane Goodall's Wild Chimpanzees (excerpt)

Wednesday, 2/12: What are Apes?

Stringer, Chris and Peter Andrews

2005 Living Apes and Their Environment *and* What Makes an Ape. *In* The Complete World of Human Evolution. Pp. 16-19 and 88-89. London: Thames and Hudson.

GO TO PRIMATE INFO NET: http://pin.primate.wisc.edu Find the Primate Factsheets page (click on the button on the left). Print out and read the fact sheets for the following species:

Hylobates lar (Lar gibbons)

Pongo sp. (orangutans)

Gorilla sp. (gorillas)

Pan paniscus (bonobos)

Pan troglodytes (chimpanzees)

Each group will be assigned one species on which to present.

Friday, 2/14: Do Chimpanzees Have Culture? (Student Presentation and Discussion Day)

Sayers, Ken and C. Owen Lovejoy

2008 The Chimpanzee Has No Clothes: A Critical Examination of *Pan troglodytes* in Models of Human Evolution (excerpt). Current Anthropology 49(1): 96-98.

Whiten, Andrew and Christophe Boesch

2001 The Cultures of Chimpanzees. Scientific American 284(1):48-55.

Moodle reading quiz #3 due before class

Monday, 2/17: Are Chimpanzees Self-Aware?

Gallup, Gordon, Jr.

1998 Can Animals Empathize? Yes. Scientific American Presents (Winter): 66, 68-71.

Gorman, James S.

2013 Considering the Humanity of Nonhumans. New York Times, December 13:D1.

<u>In-Class Film:</u> Through the Looking Glass (excerpt)

Wednesday, 2/19: Are Chimpanzees Aware of What Others Know and Feel?

Crockford, Catherine, Roman M. Wittig, Roger Mundry, and Klaus Zuberbuhler

2012 Wild Chimpanzees Inform Ignorant Group Members of Danger. Current Biology 22(2):142-146.

Fouts, Roger

2000 "My Best Friend is a Chimp:" One-on-One with Our Closest Cousins. Psychology Today 33(4): 69-73.

Friday, 2/21: Do Chimpanzees Use Language?

Economist

2007 Gestures of Intent. May 5:99.

Hale, Benjamin

The Last Distinction: Talking to Animals. Harper's Magazine 325(1947):65-68, 70.

In-Class Film: *Project Nim* (excerpt)

Moodle reading quiz #4 due before class

Monday, 2/24: Exam 1

THEME 3: HUMAN ORIGINS

Wednesday, 2/26: What are Fossils?

Shipman, Pat

2012 Fossils (excerpt). New Scientist 215(2876):iii-vii.

Stringer, Chris and Peter Andrews

2012 Paleoanthropology, The Geological Time Scale, *and* Taphonomy: How Fossils Are Preserved. *In* The Complete World of Human Evolution. Pp. 24-29 and 46-49. London: Thames and Hudson.

Friday, 2/28: Who Were the Earliest Human Ancestors?

Harmon, Katherine

2013 Shattered Ancestry. Scientific American 308(2):42-49.

Stringer, Chris and Peter Andrews

2012 Late Miocene Apes and Early Human Ancestors (excerpt). *In* The Complete World of Human Evolution. Pp. 114-117. London: Thames and Hudson.

In-Class Film: Discovering Ardi (excerpt)

Moodle reading quiz #5 due before class

Monday, 3/3: Understanding Australopithecines and Their Anatomy

Larsen, Clark Spencer

2014 The Australopithecines. *In* Our Origins: Discovering Physical Anthropology. 3rd edition. Pp. 310-325. New York: W.W. Norton & Co.

Wednesday, 3/5: How Do Australopithecines Fit into Our Family Tree?

Stringer, Chris and Peter Andrews

2012 Australopithecus africanus *and* Robust Australopithecines *In* The Complete World of Human Evolution. Pp. 124-129. London: Thames and Hudson.

Wong, Kate

2012 First of Our Kind. Scientific American 306(4):30-39.

Friday, 3/7: Lab: Australopithecine Cranial Capacity, Relative Brain Size, and Height No reading

Moodle reading quiz #6 due before class

Monday 3/10: Why Did Our Ancestors Start to Walk on Two Legs? (Student Presentation and Discussion Day)

Stanford, Craig

2003 What Do You Stand For? *In* Upright: The Evolutionary Key to Becoming Human. 104-121. Boston: Houghton Mifflin Co.

Stringer, Chris and Peter Andrews

2012 Evolution of Locomotion in Apes and Humans *In* The Complete World of Human Evolution. Pp. 184-189. London: Thames and Hudson.

Lab write-up #1 due

Wednesday, 3/12: Why Did Our Ancestors Lose Their Fur?

Jablonski, Nina G.

2010 The Naked Truth. Scientific American 302(2):42-49.

Friday, 3/14: The Role of Hunting and Violence in Human Evolution (Student Presentation and Discussion Day)

Sussman, Robert W.

1999 The Myth of Man the Hunter/Man the Killer and the Evolution of Human Morality. Zygon 34(3):453-471.

Moodle reading quiz #7 due before class

Monday, 3/17: Hunter or Hunted?

Hart, Donna and Robert W. Sussman

2005 We Weren't Just Waiting Around to Be Eaten! *In* Man the Hunted: Primates, Predators, and Human Evolution. Pp.161-190. New York: Westview Press.

Grimes, Ken

2002 Hunted! New Scientist 174(2338):34-38.

THEME 4: OUR GENUS EMERGES

Wednesday 3/19: Origins of the Genus *Homo*

Stringer, Chris and Peter Andrews

2012 The Origins of Humans *and* Early *Homo*. *In* The Complete World of Human Evolution. Pp. 130-135. London: Thames and Hudson.

Lewin, Roger

2004 Early Tool Technologies. *In* Human Evolution: An Illustrated Introduction. 5th edition. Pp.151-156. Malden, MA: Blackwell.

Friday, 3/21: Lab: Making Oldowan Stone Tools

No reading.

Moodle reading quiz #8 due before class

Research paper proposal and annotated bibliography (5 source minimum) due

Friday, 3/21 – Last day to withdraw from a course with grade of W

Monday, 3/24-Friday 3/28: SPRING RECESS

Monday, 3/31: Homo erectus: Out of Africa

Stringer, Chris and Peter Andrews

2012 *Homo erectus. In* The Complete World of Human Evolution. Pp. 136-139. London: Thames and Hudson.

Larsen, Clark Spencer

2014 *Homo erectus:* Early Homo Goes Global. *In* Our Origins: Discovering Physical Anthropology. 3rd edition. Pp. 335-348. New York: W.W. Norton & Co.

Lab write-up #2 due

Wednesday, 4/2: How Did the Control of Fire Influence Human Evolution? (Student

Presentation and Discussion Day)

Lewin, Roger

2004 New Technologies. *In* Human Evolution: An Illustrated Introduction. 5th edition. Pp.166-169. Malden, MA: Blackwell.

Miller, Kenneth

2013 Fire Starter: Archaeologists Find Earliest Evidence of Humans Cooking With Fire. Discover 34(4):28-29.

Stringer, Chris and Peter Andrews

2012 Tools and Human Behavior: The Earliest Evidence. *In* The Complete World of Human Evolution. Pp. 208-209. London: Thames and Hudson.

Friday, 4/4: How Many Early *Homo* Species Were There?

Craze, Paul

2013 Early Human Evolution and the Skulls of Dmanisi. Significance 10(6):6-11.

Gibbons, Ann

2013 Stunning Skull Gives Fresh Portrait of Early Humans. Science 342(6156):297-298.

Moodle reading quiz #9 due before class

Monday, 4/7: Exam 2

THEME 5: HOMO SAPIENS AND OTHER RECENT HOMO SPECIES

Wednesday, 4/9: Origin of Anatomically Modern Humans: The Replacement Model Balter, Michael

2001 Anthropologists Duel over Modern Human Origins. Science 291(5509):1728-1729.

Stringer, Chris and Peter Andrews

2012 Models of Recent Human Evolution *and* Africa—Homeland of *Homo sapiens? In* The Complete World of Human Evolution. Pp. 140-143, 158-161. London: Thames and Hudson.

Tierney, John, Lynda Wright, and Karen Springen

1988 The Search for Adam and Eve. Newsweek (January 11): 46-52.

Friday, 4/11: Origin of Anatomically Modern Humans: The Multiregional Model

Thorne, Alan G. and Milford H. Wolpoff

2003 The Multiregional Evolution of Humans. Scientific American Special Edition 13(2):46-53.

Wolpoff, Milford H., Alan G. Thorne, and Roger Lawn

1991 The Case against Eve. New Scientist 130(1774):37-41.

Moodle reading quiz #10 due before class.

Monday, 4/14: Origin of Anatomically Modern Humans: Evolving Views

Bower, Bruce

2012 Tangled Roots. Science News 182(4):22-26.

Gibbons, Ann

2011 A New View on the Birth of *Homo sapiens*. Science 331(6016):392-394.

Stringer, Christopher

2012 Evolution: What Makes a Modern Human. Nature 485(7396):33-35.

Research paper outline due

Wednesday, 4/16: Introducing Neandertals

Stringer, Chris and Peter Andrews

2012 Atapuerca and the Origin of Neanderthals *and* The Neanderthals. *In* The Complete World of Human Evolution. Pp. 152-157. London: Thames and Hudson Wong, Kate

2003 Who Were the Neandertals? Scientific American, Special Edition 13(2):28-37.

Friday, 4/18: Why Did Neandertals Go Extinct? (Student Presentation and Discussion Day) Ian Gilligan

2007 Neanderthal Extinction and Modern Human Behaviour: The Role of Climate Change and Clothing. World Archaeology 39(4):499-514.

Stringer, Chris and Peter Andrews

2012 What Happened to the Neanderthals? *In* The Complete World of Human Evolution. Pp. 164-165. London: Thames and Hudson

Wong, Kate

2009 Twilight of the Neandertals. Scientific American 301(2):32-37.

Moodle reading quiz #11 due before class

Monday, 4/21: Our Hobbit Cousin?: Homo floresiensis (Student Presentation and Discussion Day)

Stringer, Chris and Peter Andrews

2012 *Homo floresiensis. In* The Complete World of Human Evolution. Pp. 174-175. London: Thames and Hudson.

Baab, Karen L.

2012 *Homo floresiensis*: Making Sense of the Small-Bodied Hominin Fossils from Flores. Nature Education Knowledge 3(9).

http://www.nature.com/scitable/knowledge/library/homo-floresiensis-making-sense-of-the-small-91387735.

THEME 6: BECOMING US

Wednesday, 4/23: An Intellectual Leap Forward?

Stringer, Chris and Peter Andrews

2012 Tools and Human Behavior: The Middle Paleolithic and Tools *and* Human Behavior: The Upper Paleolithic. *In* The Complete World of Human Evolution. Pp. 210-215. London: Thames and Hudson.

Feder, Kenneth L.

2010 Expanding Intellectual Horizons (excerpt). *In* The Past In Perspective. Pp.216-229. Oxford: Oxford University Press.

In-Class Activity: Atlatls and Throwing Distance

Friday, 4/25: Stone Tool-Making Demonstration with Mr. Ed Mosher

No reading.

Moodle reading quiz #12 due before class

Rough draft of research paper due

Monday, 4/28: The Origins of Art and Symbolism

Balter, Michael

2009 On the Origin of Art and Symbolism. Science 323(5915):709-711.

Stringer, Chris and Peter Andrews

2012 The First Artists. *In* The Complete World of Human Evolution. Pp. 216-221.

London: Thames and Hudson.

Wednesday, 4/30: Why Did Our Ancestors Develop Language?

Gärdenfors, Peter

2003 The Origin of Speech (excerpt). *In* How Homo Became Sapiens. Pp. 167-180. New York: Oxford University Press.

Friday, 5/1: Why Do We Live So Long?

Caspari, Rachel

2011 The Evolution of Grandparents. Scientific American 305(2):38-43.

Hawkes, Kristen

2004 Human Longevity: The Grandmother Effect. Nature 428 (11 March):128-129.

Moodle reading quiz #13 due before class

Monday, 5/5: The Peopling of Australia and the Americas

Stringer, Chris and Peter Andrews

2012 The First Australians *and* The First Americans. *In* The Complete World of Human Evolution. Pp. 170-173 and 196-199. London: Thames and Hudson.

Pringle, Heather

2011 The First Americans. Scientific American 305(5):36-45.

Wednesday, 5/7: How Does Evolution Affect Us Today?

Fuentes, Agustín

2012 Humans Are Still Evolving. *In* Biological Anthropology: Concepts and Connections, 2nd edition. Pp. 343-352. New York: McGraw-Hill.

DeSilva, Jeremy

2013 Starting Off on the Wrong Foot. Paper presented at the AAAS Annual Meeting. http://www.bu.edu/anthrop/files/2013/02/DeSilva_statement.pdf

Dyson, Freeman

2007 The Era of Darwinian Evolution is Over. New Perspectives Quarterly 24:58-59.

Friday, 5/9: Fossils on Tour and Course Review

Editorial

2009 Fossils for All. Scientific American 301(3):26.

Gibbons, Ann

2006 Lucy's Tour Abroad Sparks Protests. Science 314(5799):574-575.

Moodle reading quiz #14 due before class

Final research paper due

Tuesday, 5/13: Final Exam, 8:30-11:30 AM

COURSE EXPECTATIONS

Class Participation

This course will include both lecture and discussion components, and class participation is essential. Class participation means attending all classes, arriving on time, volunteering to speak when you have a chance, demonstrating that you are well prepared for class by offering thoughtful comments/questions, and sometimes pushing yourself to make more rigorous, analytical, or imaginative points. I expect everyone to be respectful of other people's ideas and opinions. While we can and should debate issues, we should not attack other people personally for the ideas they express in class. Class participation accounts for 10% of the course grade.

NOTE ON PARTICIPATION: Participation and attendance are very important to your success in this course. Remember, you cannot participate if you are not there! If you are going to be absent, contact me before class. It is your responsibility to get all information you missed on any days you were absent. Acceptable reasons for an excused absence include family emergency, serious illness, religious holiday, and participation in college athletic competitions. Please note that excessive absences, even when excused, will negatively impact your participation grade and

your final course grade at the professor's discretion. Students with unexcused absences will receive no participation credit for the days they are absent. Typically, no more than three excused absences are permitted over the course of the semester. If you have more than six absences, you may not be eligible to continue in the course whether these absences are excused or unexcused.

Moodle Reading Quizzes

Every week before class on Friday, students will take a **timed, five-minute, open-book** quiz in Moodle. These quizzes will be available from noon on Thursday to the class start time on Friday. They will cover all of the week's assigned reading. These fourteen quizzes will together count for 5% of the course grade. The lowest quiz score will be dropped.

Group Student Presentation and Discussion Leadership

Over the course of the semester, each student will present once as part of a group on a day's topic. The topics for student presentations are: (1) Do Chimpanzees Have Culture?; (2) Why Did Our Ancestors Start to Walk on Two Legs?; (3) The Role of Hunting and Violence in Human Evolution; (4) How Did the Control of Fire Influence Human Evolution?; (5) Why Did Neandertals Go Extinct?; and (6) Our Hobbit Cousin?: Homo floresiensis. In preparation, students who are presenting will read additional peer-reviewed journal articles about the day's topic that I assign. You are responsible for 40 minutes of class time the day that you present, including a 20-minute presentation and a 20-minute interactive activity for the class. The interactive activity could be a trivia game (e.g., jeopardy), small group discussion, debate, etc. Feel free to be creative, just be sure not to be boring. Remember that every group member should speak about the same amount during the presentation and discussion periods, and your group will be marked down if just a few students from the group dominate the presentation and discussion. This assignment is worth 5% of your course grade.

Reflection Paper

On the day you present in class, you will turn in a 3- to 5-page reflection paper about the day's topic, incorporating evidence from the class readings and the extra assigned readings that you did in preparation for leading class. This paper is worth 7.5% of your course grade.

Lab Write-Ups

Two short write-ups for in-class labs are together worth 5% of your course grade.

Research Paper

You will develop a 6-8 page paper on a topic relevant to the course topic. The project has multiple parts including (1) research appointment with librarian (0%), (2) paper title, proposal, and annotated bibliography (5 source minimum), (0%), (3) paper outline (0%), (4) rough draft (0%), and (5) final research paper (15%). Although no points are awarded for the first four parts

of the assignment, failure to do them thoughtfully will cause points to be deducted from your research paper grade. No library consultation: -3 points. No proposal/preliminary bibliography: -5 points. No paper outline: -5 points. No rough draft: -7 points. All of these assignments are designed to improve your research project, therefore it is to your advantage to do them. I reserve the right to reject an unauthorized term paper topic.

Exams

Three exams will be given over the semester. Exam 1 and Exam 2 are each worth 15% of your course grade. The final exam, which is cumulative, is worth 22.5% of your course grade.

GRADING SUMMARY:

Class participation: 10% Moodle reading quizzes: 5%

Group presentation/discussion leadership: 5%

Reflection paper: 7.5% Lab Write-Ups: 5% Research paper: 15%

Exam #1: 15% Exam #2: 15% Exam #3: 22.5%

GRADING POLICIES

A 93+; A- 90-92.999; B+ 87-89.999; B 83-86.999; B- 80-82.999; C+ 77-79.999; C 73-76.999; C- 70-72.999; D+ 67-69.999; D 63-66.999; D- 60-62.999; F <60

At Depauw, A and A- grades reflect "achievement of exceptionally high merit." B+, B, and B-grades indicate "achievement at a level SUPERIOR to the basic level." C+, C, and C- grades reflect "basic achievement," and D+, D, D- grades reflect "minimum achievement that warrants credit." Please realize that B grades in this course reflect very good work; a "B" is not a poor grade in this or any other course at DePauw. C grades also indicate basic mastery of the material.

COURSE POLICIES

Academic Misconduct

Please familiarize yourself with DePauw's Academic Integrity Policy. I take academic dishonesty, including plagiarism, very seriously, and at DePauw such misconduct can have a variety of serious consequences. If you are at all unsure what constitutes plagiarism, please ask. If you get behind or overwhelmed, please talk to me. Students in this course will include the

following pledge on all assignments and exams: "On my honor, I pledge that I have neither given nor received unauthorized help on this assignment."

Late Assignments

All assignments are due in class on the due dates listed. After its due date, an assignment's value drops 10 percentage points for each day it is late. For example, if an assignment were one day late, a perfect score would give you only 90%. If it were two days late, an otherwise perfect assignment would be given 80%. I will not accept assignments more than three days late. If you have an emergency, contact me before class.

Missed Exams and Quizzes

I will not provide make-up examinations for any exam unless a serious illness or family emergency prevents a student from taking the exam at the scheduled time. Otherwise, any missed exam will result in a grade of 0%. If a religious holiday or college athletic competition conflicts with either exam time, please let me know in the first two weeks of class so that we can plan for your accommodation. If you miss the exam unexpectedly because of serious illness or family emergency, let me know within 24 hours of the missed exam time. Moodle quizzes must be completed before class starts on Friday and cannot be made up.

Laptops and cell phones

Laptop and cell phone use is generally prohibited during class sessions. If you like to take notes on your laptop, talk to me and we can arrange for your accommodation.

Learning and Other Disabilities

If you have a documented disability, please contact Mrs. Pamela Roberts, Coordinator of Student Disabilities Services, to arrange for any needed accommodations, such as extended test-taking time or the right to take tests in an environment with fewer distractions. Also, if you suspect that you have a disability but don't yet have documentation, please contact Mrs. Roberts for help. She can be reached at 765-658-6267 or pamelaroberts@depauw.edu. Disabilities entitled to accommodation include mobility impairments, hearing or vision issues, speech impairments, learning disabilities, ADD, ADHD, psychological disabilities, neurological impairments, traumatic brain injury, and chronic medical conditions such as AIDS, cancer, and diabetes. I cannot accommodate any student without first receiving proper documentation from the Student Disabilities Services, so plan ahead. It is the student's responsibility to bring the SDS memo to me and discuss the implementation of accommodations. Please note that accommodations are not retroactive.