GOALS AND OUTCOMES
This is a class in paleoanthropology, in which we will explore selected details of the human fossil and archaeological records. During the first part of the course, we will examine methods and theories of evolutionary analysis. In the second part of the course we will cover the fossil record from the origin of life through the emergence of culture-bearing human ancestors. In the last third of the course we will explore the coevolution of human biology and culture. Students who master this class can expect the following outcomes:

- Have a grasp of the basics of evolution theory
- Know the general outline and some details of the human fossil and archaeological records
- Understand how we make sense of the fragmentary fossil record
- Be able to evaluate claims about human evolution

TEXT

MOODLE
This class is offered online through Moodle. I can only be responsible for the content I place on Moodle – not for its administration or for technical issues. For help with accessing Moodle contact the UMOnline Help Desk at: 406.243.4999 or umonline-help@umontana.edu.

GRADING
Three non-cumulative midterms will be offered, one after each third of the course. A cumulative final exam will be offered on the scheduled final exam day. 70% of your grade will be based on your best 3 scores out of these 4 exams, which will be weighed equally. There will also be 15 weekly assignments each worth 2% of your grade. I will assign grades based on your cumulative score using this scale: A = 100-90, B = 89-80, C = 79-60, D = 59-50, F = < 50. I may modify these grades with a + or - in special cases. The grading mode is “open” meaning that you can take the class for a traditional grade or CR/NCR. If you take a class CR/NCR you cannot count it toward specific major, minor, option, or certificate requirements that require a minimum grade.

MISCELLANEOUS
- Students with disabilities will be accommodated upon recommendation by Disability Student Services (DSS)
- This class and the students enrolled in it are subject to the Student Conduct Code, http://www.umt.edu/vpsa/policies/student_conduct.php.

SCHEDULE
The schedule of topics, lectures, readings, assignments, and exams is reflected in the weekly organization of the Moodle shell for this class.
Course Info

Watch This Video To Get Started

Welcome to ANTY 312: Human Evolution

Please Click Here To Read Some Crucial Details About This Class

Please Read This Note About Updates to Lectures 8.1KB

Instructor Info

Syllabus 18KB

Note that this semester each academic week begins on a Thursday and ends on a Wednesday. Therefore, all assignments and exams are due on a Wednesday at 11:55pm Mountain Time.

August 31 - September 6

Monday is Labor Day Holiday

Lectures

Lecture 1: Introduction to the class

Notes for Lecture 1 63.1KB

Reading: Klein pp. xix-xxii.
Assignment 1. Due Wednesday at 11:55pm
Mountain Time

September 7 - September 13

Lectures

- Lecture 3: What Old Bones Can Tell Us
  - Notes for Lecture 3 486.2KB
- Lecture 4: Methods of Archaeological Inference
  - Notes for Lecture 4 144.4KB
    - Reading: Klein pp. 54-64.
- Lecture 5: Paleoenvironment & Taphonomy
  - Notes for Lecture 5 162.8KB

Assignment 2. Due Wednesday at 11:55pm
Mountain Time

September 14 - September 20

Lectures

- Lecture 6: Evolution
  - Notes for Lecture 6 89.6KB
Reading: Klein pp. 1-9, 19-54.

Lecture 7: Taxonomy, Neontology, and Paleontology
Notes for Lecture 7 144.7KB
Reading: Klein pp. 9-18, 69-81, 94-96.

Handout on Taxonomy of Primates 27.8KB
Handout on Taxonomy of Humans 10.8KB
Lecture 8: Evolutionary Analysis
Notes for Lecture 8 106.7KB

Assignment 3. Due Wednesday at 11:55pm
Mountain Time

Assignment 3: Tree Thinking Quiz
The Tree-Thinking Challenge. (Baum et al. 2005) 154.1KB
How to Read an Evolutionary Tree 217.6KB

September 21 - September 27

Lectures

Lecture 9: Cladistics I
Notes for Lecture 9 125.6KB
Handout on Basics of Cladistic Analysis 155.4KB

Lecture 10: Cladistics II
Notes for Lecture 10 118.3KB

Lecture 11: Evolution to Mammals
Notes for Lecture 11 484.8KB
Handout on Chordate Evolution 310.7KB

Assignment 4. Due Wednesday at 11:55pm
Mountain Time
September 28 - October 4

Lecture

Lecture 12: Placental Mammals to Plesiadapiformes

*This is the last lecture for exam 1.*

Notes for Lecture 12 211.7KB

Assignment 5. Due Wednesday at 11:55pm Mountain Time

Handout on the Geologic Column 32.8KB

Assignment 5: Geologic Column Quiz

Exam 1. Due Wednesday at 11:55pm Mountain Time

Exam 1

Exam 1 will cover lectures 1 through 12. There will also be questions taken (perhaps with modification) from the assignments given during this time period.

Lecture

Lecture 13: Early True Primates

*This lecture will be on the second exam.*

Notes for Lecture 13 202.6KB

Reading: Klein pp. 89-106.

October 5 - October 11
Lectures

Lecture 14: Early Anthropoids
Notes for Lecture 14 430KB
Reading: Klein pp., 106-112, 87-89.

Lecture 15: Apes I: The Fossil Apes
Notes for Lecture 15 495.7KB
Reading: Klein pp. 112-130.

Lecture 16: The Apes II: The Living Apes
Notes for Lecture 16 390.4KB
Reading: Klein pp. 81-87.

Assignment 6. Due Wednesday at 11:55pm Mountain Time.

Assignment 6: First Primates Practice Quiz

October 12 - October 18

Lectures

Lecture 17: Bipedalism and Canines
Notes for Lecture 17 344.1KB
Reading: Klein pp. 271-278.

Lecture 18: Molars, Brains, and the First Hominins
Notes for Lecture 18 232.2KB
Reading: Klein pp. 183-191, 199-201.

Lecture 19: The Australopithecines
Notes for Lecture 19 223KB
Reading: Klein pp. 131-183.

Handout: Summary of Australopithecines 33.5KB
October 19 - October 25

Lectures

- **Lecture 20: Early Gracile Australopithecines**
  - Notes for Lecture 20 338.8KB

- **Lecture 21: Late Gracile Australopithecines**
  - Notes for Lecture 21 288.8KB
  - Reading: Klein pp. 218-234.

- **Lecture 22: Robust Australopithecines**
  - Notes for Lecture 22 250.5KB
  - Update to Lecture 22 30.5KB

October 26 - November 1

Lectures

- **Lecture 23: Homo habilis**
  - Notes for Lecture 23 218.3KB
  - Reading: Klein pp. 234-241.

- **Lecture 24: Australopithecine Phylogenetics**
Notes for Lecture 24
Reading: Klein pp. 241-249.

Lecture 25: The Australopithecine Way of Life
This is the last lecture for Exam 2. Exam 2 is at the beginning of next week.

Notes for Lecture 25 198.2KB

Assignment 9. Due Wednesday at 11:55pm Mountain Time.

Assignment 10: Phylogeny Practice for Exam 2

November 2 - November 8

Exam 2. Due Wednesday at 11:55pm Mountain Time

Exam 2 will cover lectures 13 through 25. It will also include questions taken (perhaps with modification) from the assignments that were given over this time period.

Lectures

Lecture 26: Homo habilis' Brain and Language
Notes for Lecture 26 311.4KB

Lecture 27: The Scavenging Stage
Notes for Lecture 27 194.4KB
Reading: Klein pp. 249-271.

Handout on Phylogenies for Genus Homo 142.4KB

Assignment 10. Due Wednesday at 11:55pm Mountain Time.

Assignment 10: Practice Quiz for Early Transitional Humans
November 9 - November 15

Friday is Veterans Day Holiday

Lectures

- Lecture 28: Homo erectus
  - Notes for Lecture 28 234.4KB

- Lecture 29: The Big Game Use Stage
  - Notes for Lecture 29 188.7KB
  - Reading: Klein pp. 372-434.

Assignment 11. Due Wednesday at 11:55pm Mountain Time.

- Assignment 11: Practice Quiz for Homo Erectus

November 16 - November 22

Wednesday is Student Travel Day Holiday

Lectures

- Lecture 30: Homo heidelbergensis
  - Notes for Lecture 30 256.9KB
  - Update to Lecture 30 40.9KB
  - Reading: Klein pp. 311-312, 330-350, 358-372.

- Lecture 31: Neanderthals
  - Notes for Lecture 31 218.9KB
  - Reading: Klein pp. 308-311, 435-481.
Assignment 12. Due Wednesday at 11:55pm Mountain Time.

Assignment 12: Practice Quiz for Homo heidelbergensis

November 23 - November 29

Thursday and Friday are Thanksgiving Holiday

Lectures

Lecture 32: The Middle Paleolithic
   Notes for Lecture 32 207.6KB
   Reading: Klein pp. 481-602.

Lecture 33: The Origin of Modern Humans
   Notes for Lecture 33 165.5KB
   Reading: Klein pp. 306-308, 602-643.

Assignment 13. Due Wednesday at 11:55pm Mountain Time.

Assignment 13: Practice Quiz for Neanderthals

November 30 - December 6

Lectures

Lecture 34: Interactions of Moderns and Others
   Notes for Lecture 34 156.3KB

Lecture 35: Were Neanderthals a Subspecies?
   Notes for Lecture 35 184.3KB

Lecture 36: The Upper Paleolithic
Assignment 14. Due Wednesday at 11:55pm Mountain Time.

Assignment 14: Practice Quiz for Early Modern Homo sapiens

December 7 - December 13

Lectures

Lecture 37: Peopling the World

Notes for Lecture 37 205.9KB
Reading: Klein pp. 698-724.

Lecture 38: The Present & Future of Human Evolution

This is the last lecture of the course.

Notes for Lecture 38 59.5KB
Reading: Klein pp. 725-751.

Assignment 15. Due Wednesday at 11:55pm Mountain Time. Do this assignment before taking the exam.

Assignment 15: Practice for Exam 3

Exam 3. Due Wednesday at 11:55pm Mountain time.

Exam 3

Exam 3 will cover lectures 26 through 38. There will be some questions taken (perhaps with modification) from the assignments that were available over the relevant time period.
Optional Final Exam. Due Wednesday at 11:55pm Mountain Time.

Recall that I will base your class grade on the best 3 out of 4 exams. Therefore, if you are happy with your grade after the preceding 3 exams you do not need to take the final exam. You may take it if you want to increase your grade, because a higher grade on the final will cause a lower exam grade to be dropped. If for some reason you missed one of the previous 3 exams you must take this final.

The final will consist of 50 multiple choice questions. I will select the questions from the most commonly missed questions on the previous 3 exams.

Good luck!

Final Exam