

Rhodes College
ANTHROPOLOGY 203
Human Evolution
Spring 2007

Professor: Dr. Katherine Mickelson
Office: Clough 105
mickelsonk@rhodes.edu

Class Time: MWF 3:00-3:50

Required Texts:

1. *Introduction to Physical Anthropology*: 10th edition, Jurmain, Kilgore and Trevathan—with Virtual laboratory and supplements (bundle in book store)
2. *On the Origin of Species: A Facsimile of the First Edition* (Harvard Paperbacks) (Paperback) by Charles Darwin. (note: there are numerous versions of *On the origins of species* and this is the only acceptable version for this class)

Required Articles (handed out in class):

1. D. Futuyma: The growth of evolutionary science
2. E. Mayr: Darwin's Influence on Modern thought
3. P. Bowler: Charles Darwin: The Man and his Influence—Chapter 2: Evolution before the Origin of Species

Additional reading will be distributed in class and should be considered required reading.

* Reading assignments are listed in the schedule below. STUDENTS SHOULD BE FAMILIAR WITH THE ASSIGNED READINGS AND BE PREPARED TO ASK QUESTIONS OR PARTICIPATE IN DISCUSSIONS ON THE ASSIGNED DATE.

Course Description:

This course considers the origin and development of humankind and covers the origins of humanity from the fossil, biological, and archaeological perspectives. As humans have only recently developed writing systems, the historical record is rather short. Nearly 99 percent of the human experience on the planet can be found nowhere else but the archaeological and geological record. This course will explore human evolution from its beginning, when our ancestor diverged from ancestors of modern non-human primates. We will examine the evolution of humans from this point some five million years ago, to the emergence of modern humans about 100,000 years ago. To understand human prehistory, this course will cover topics such as the development of evolutionary theory, human genetics and variation, neo-Darwinian evolutionary theory, elements of geology and archaeology, and a background in human cultural anthropology.

Class Structure:

Class periods will consist of lectures, discussions, films, and lab assignments designed to reinforce and compliment the concepts presented in the assigned readings. In addition, student group presentations will add additional information on relevant topics.

Course Objectives:

This course is designed to provide you with an understanding of human evolution, the evolution and development of the primates and of humans; modern human diversity; and the future of our species in a changing natural and social environment.

Course Requirements and Final Grade Assessment:

| | | |
|--|-------|---------------------|
| 3 non-comprehensive examinations (3 @ 100 pts) | | 300 |
| In-Class Lab Assignments | up to | 200 |
| Presentation | | 50 |
| Write-up of presentation | | 100 |
| Quizzes | up to | 100 |
| Origins of Species assignment | | 100 |
| Attendance | | <u>100</u> |
| | | 950 possible points |

Examinations: There will be three, non-comprehensive examinations spread through out the semester. These examinations will be objective in nature (i.e., multiple choice, true/false, matching) and may include essay questions. Each examination is worth 100 points toward your final grade.

In-Class Lab Assignments: There will be lab assignments throughout the semester. Each lab assignment requires the student to be present in class, to do the lab exercise, and to complete a written statement on the lab exercise and/or turn in the self test from the virtual lab CD. These lab assignments are intended to give the students hands-on experience in working through simple examples of concepts introduced in lecture and the readings. **THERE ARE NO MAKEUP LAB ASSIGNMENTS – NO EXCEPTIONS.**

Presentation and presentation write up: each student will be part of a group presentation on one of the following subjects:

2/2 Group 1: James Watson, Francis Crick, Maurice Wilkins and Roseland Franklin and the DNA Model

2/12 Group 2: The Modern Synthesis of Evolutionary Theory: the works of Theodosius Dobzansky, George Gaylord Simpson and Ernest Mayr

2/23 Group 3: Jane Goodall and primate behavior and conservation

3/19 Group 4: Louis, Mary, Richard and Maeve Leakey’s research in East Africa

4/13 Group 5: The Out of Africa vs. The Multiregional hypotheses: Stringers and Andrews vs. Wolpoff

4/23: Group 6: The Evolution of and Population Genetics of HIV/AIDS

Each group is responsible for an entire class period and each student of each presentation must present their own work. It is hoped that each group will work as a team and provide a logical transition between each presentation. **NO MORE THAN 4 STUDENTS PER TOPIC.**

Write up of presentation: each student must turn in a 5 page paper on their part of the presentation. The written part of the assignment IS NOT to be a collaborative endeavor. Each written section must contain at least 4 sources, only two of which can be from a web site (JSTOR is NOT a web site). In addition, no electronic or hardcopy of an encyclopedia can be used as one of your web pages or sources, this includes Encyclopedia Britannica and Wikipedia. At least two sources must be from a professional, peer reviewed journal.

You will be graded upon the following:

1. Clarity and accuracy of your report

2. Thoroughness of your exploration of the researchers work or the topic
3. Discussion of the importance of the researchers work or the importance of the topic/ site to human evolution.
4. Your critique and interpretations
5. Your bibliography and proper citations in your text.

Professional Anthropological Journals
 Journal of Field Archaeology
 American Antiquity
 Journal of World Prehistory
 Midcontinental Journal of Archaeology
 North American Archaeologist
 Southeastern Archaeologist
 Journal of Human Evolution
 Current Anthropology
 Journal of Anthropological Research
 Journal of Anthropological Archaeology
 American Anthropologist
 Journal of Ethnobiology

Other Sources
 Nature
 Natural History
 National Geographic
 Smithsonian
 Discover
 New York Times
 Science
 Archaeology
 Earthwatch

Sample References using the required American Antiquity style Citations

Prufer, Olof

.1964 The Hopewell cult. *Scientific American* 211(6):90-102.

Trigger, B.G., B.J. Kemp, D.O. O'Connor, and A.B. Lloyd.

1981 *Ancient Egypt: A Social history*. Cambridge: Cambridge University Press.

Zvelebil, M., and P.M. Dolukhanov.

1991 The transition to farming in eastern and northern Europe. *Journal of World Prehistory* 5(3):233-278.

IF YOU ARE UNCERTAIN THAT YOUR SOURCE IS FROM A PROFESSIONAL JOURNAL OR TEXT OR YOU HAVE A QUESTION ABOUT CITATION PROCEDURES ASK ME

The Origins of Species Assignment: each student must read and write a 1 paragraph summary (minimum of 5 sentences, no more than 10 sentences) of each chapter of the *Origins of Species* by Charles Darwin. This assignment is intended to have students become familiar with the writings of one of the most important and influential works on the topic of evolution. In addition, it is intended to serve as practice of the art of the precise or short, but scholarly writing. You MAY NOT use direct quotes as part of minimum number of sentences. This assignment is intended to be solely from the *Origins of Species* and outside sources cannot be used.

Note on written assignments: all written assignments are due at the beginning of class of the due date. They must be of standard font (i.e., Times New Roman, Ariel..) in 10 or 12 point font with 1 inch margins. All pages should be numbered and staple your paper. If sources are used for a particular assignment, you must give proper citations. As stated in [The Sundance Reader, Third Edition, Web Site](#) by Mark Connelly examples of where citations are needed include:

1. **Direct quotations**

Whenever you quote a source word for word, you must place it in quotation marks and cite its source.

2. **Indirect quotations or paraphrases**

Even if you do not copy a source but state the author's ideas in your own words, you must cite the source.

Changing a few words or summarizing a page of text into a few sentences does not alter the fact that you are using someone else's ideas.

3. **Specific facts, statistics, and numbers**

Data will only be credible and acceptable if you present the source. If you state, "Last year, 54,450 drunk drivers were arrested in California" readers will naturally wonder where you obtained that number. Statistics only make credible evidence if readers trust their source.

4. **Graphs, charts, and other visual aids**

Indicate the source of any graphic you reproduce.

You must also cite the source for information you use to create a visual display.

Class Participation and Attendance: Class attendance will be monitored. Attendance and participation in class discussions will be assessed as part of the final grade. If you do not attend class you cannot participate in class discussions and your overall understanding of the material covered on examinations will suffer. Please be courteous to your classmates and professor: **DO NOT COME TO CLASS LATE, DO NOT CHAT WITH OTHERS, TURN OFF CELL PHONES, DO NOT POP GUM.....**

Missed Examination and Late Assignment Policy:

Make-up examinations are generally not given except under extraordinary circumstances and are at the professor's discretion and if given **will be essay**.

All written assignments are due at the **beginning** of class on the scheduled date. Late assignments are not accepted.

Tentative Course Schedule

| Week / Dates | Topic | Readings | |
|--------------|--------------|--|---|
| 1 | 1/10-12 | Anthropology, Myth and the Scientific Method | JKT: Chapter 1 |
| 2 | 1/17-19 | Evolution in intellectual and temporal perspective | JKT: Chapter 2 |
| 3 | 1/22-26 | Theory continued; Biology of Life | JKT Chapter 2-3 Articles: Futuyama; Mayr; Bowler |
| 4 | 1/29-31; 2/2 | Biology of life; Heredity Group presentation #1 2/2 | JKT Chapter 3-4 |
| 5 | 2/5-9 | Heredity; Macroevolution Origins of Species assignment due 2/7 | JKT Chapter 4-5 |
| 6 | 2/12-16 | Macroevolution; Primates Group presentation #2 2/12 | JKT Chapter 5-6 |
| | | EXAM I 2/16 | |
| 7 | 2/19-23 | Primates Group presentation #3 2/23 | JKT Chapter 6-8 |
| 8 | 2/26-28; 3/2 | Primates; Paleoanthropology | JKT Chapter 8-9 |
| 9 | 3/5-9 | Paleoanthropology; Early hominids and Australopithecines | JKT Chapter 9-10 |
| 10 | 3/12-16 | SPRING BREAK | |
| 11 | 3/19-23 | Australopithecines, <i>Homo habilis</i> ; <i>Homo erectus</i> Group presentation #4 3/19 | JKT Chapter 10-11 |
| | | EXAM II 3/23 | |
| 12 | 3/26-30 | <i>Homo erectus</i> and contemporaries; Premodern humans | JKT Chapter 11-12 |
| 13 | 4/2-4 | Premodern humans and Neanderthals | JKT Chapter 12 |
| | 4/6 | EASTER BREAK | |
| 14 | 4/9-13 | <i>Homo sapiens sapiens</i> Group presentation #5 4/13 | JKT Chapter 13 |
| 15 | 4/16-20 | Modern Human Variation and population genetics and Hardy Weinberg | JKT Chapter 14-16 |
| 16 | 4/23-27 | Modern Human variation and population genetics Group presentation #6 4/23 | JKT Chapter 14-16 |
| | | FINAL EXAM Saturday 5/5 5:30 pm | |