

ARCH 2800
Honors Archaeological Science
Spring 2007

Dr. Steve Wolverson
Class Time: W 2 – 5 PM
Office Hours: T-Th 10 – 11 AM, or by appt.

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Course Objective: The purpose of this course is to dissect archaeology to determine whether or not it is a science. Archaeologists maintain that their field is scientific, but little to no attention is paid toward truly defining “science” and less is paid to whether or not archaeologists actually produce scientific products. An argument can be made either way: in some senses archaeology is scientific, in other ways it is not. This course is an opportunity to explore what science is, what archaeology is, and how the two intertwine. Students will cover readings on the philosophy of science, method and theory in archaeology, and then discover some aspects of world prehistory. By the end of the semester students should be able to determine which archaeological arguments, if any, are scientific, and they should be able to use archaeological data in a scientific manner to derive conclusions about prehistoric human lifeways.

This class addresses the core curriculum requirements including:

- 1) To understand and apply method and appropriate technology to the study of natural sciences.
- 2) To recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.
- 3) To identify and recognize the differences among competing scientific theories.
- 4) To demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies.
- 5) To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture.

Reading Material

Required reserve readings available in the student union copy center.

Grading: There are regular group exercises over reading material that will occur during class time. There are also reading summaries due on a regular basis. The first exam is a series of definitions and short essays. Students will also take three in-class essay exams at regular intervals during the rest of the semester. The cumulative fourth essay exam is worth 30% of the lecture grade and will be held during the final exam period; it will have two sections, one over the fourth section of the course and one that is cumulative.

1 movie handout exercise =	10 pts
7 group exercises @ 10 points each =	70 pts
7 Weekly summaries @ 10 pts each =	70 pts
Exams 2 & 3 @ 75 points each =	150 pts
Exam 1 & 4 (final) @ 125 points =	250 pts
Total points =	550 pts

Final Grades (91.5% & above = A; 81.5 – 91.4% = B; 71.5 – 81.4% = C; 59.5 – 71.4 % = D; below 59.5% = F)

Labs are worth 34% of the course grade; if you do not pass lab, you do not pass the class.

COURSE OUTLINE AND ASSIGNED READINGS:

Week 2 Jan 24 Boot Camp: SCIENCE & ARCHAEOLOGY:

Week 3 Jan 31 Boot Camp: EVOLUTION & ECOLOGY

- Reading Set One:**
- 1.) Dunnell 1986
 - 2.) Dunnell 1982
 - 3.) Dunnell 1992
 - 4.) Ereshefsky 1992

Week 4 Feb 7 **Exam 1 (covers “Boot Camp” material)**
Movie: “What About God?” w/ handout questions.

Week 5 Feb 14 Discussion week: SCIENCE
Summaries on articles from reading set one due today.
Reading Set Two: 1.) Gould 1986
2.) Mayr 1978
3.) Dawkins 1989, pp. 12 – 45.
4.) Dawkins 1989, pp. 189 – 201.

Exam 1 (covers material through EVOLUTION)

ARCHAEOLOGICAL PRINCIPLES & DATING

Three principles

Dating

Classification

Reading Set Three: 1.) O’Brien & Lyman 1999, pp. 1 – 58.
2.) Sutton & Yohe 2006, Chapter 7

Week 6 Feb 21 ARCHAEOLOGICAL PRINCIPLES & DATING (Discussion week)
Summaries due Wednesday Feb 28
Group exercises due Friday Feb 28

Week 7 Feb 28 SITE FORMATION PROCESSES & TAPHONOMY
Preservation
Life histories of artifacts
Taphonomy
Reading Set Four: 1.) Schiffer 1972
2.) Wood & Johnson 1978
3.) Sutton & Yohe 2006, Chapter 4

Week 8 Mar 7 SITE FORMATION PROCESSES & TAPHONOMY (Discussion week)
Summaries due Wednesday Oct. 19
Group exercises due Friday Oct. 21

Week 9 Mar 14 **Exam 2 (ARCHAEOLOGICAL PRINCIPLES through TAPHONOMY)**

HOMINID EVOLUTION pt. 1

Primates

Pre-*Australopithecus*

Australopithecus

Reading Set Five: 1.) Gosden 2003, pp. 331 – 346.
2.) Scarre Chapter 2

Week 10 Mar 28 HOMINID EVOLUTION pt. 1 (Discussion week)
Summaries due Wednesday, Nov. 2
Group discussion exercises due Friday, Nov. 4

Week 11 Apr 4 HOMINID EVOLUTION pt. 2
The Genus *Homo* before modern humans
Stone tools
Reading Set Six: 1.) Scarre Chapter 3
2.) Mellars 1995
3.) Sellet 1993

Week 12 Apr 11 HOMINID EVOLUTION pt. 2 (Discussion week)
Summaries due Wednesday, Nov. 16

Group discussion exercises due Friday, Nov. 18

Week 13 Apr 18 **Exam 3 (HOMINID EVOLUTION parts 1 & 2)**

HOMO SAPIENS

Pre-modern *Homo sapiens*

Modern *Homo sapiens*

Reading Set Seven: 1.) Scarre Chapters 4 & 5
2.) National Geographic Handout

Week 14 Apr 25 FROM FORAGING to FARMING

The economics of foraging

The Peopling of North America

Reading Set Eight: 1.) Rindos 1980, pp.209 - 235
2.) Lee 2003, pp. 37 - 58

Week 15 May 2 CONCLUDING THOUGHTS

Final Exam: Friday, May 8th @ 2 PM in GAB 438

Attendance Policy: *Missing class without prior legitimate excuse results in a loss of 2% off the final course grade per absence.* The instructor subjectively determines whether or not an excuse is legitimate. Five absences result in a WF for the course. Don't miss class.

Make-up Policy: It will take an extreme situation for you to earn a make-up opportunity. *Extreme* is defined by the instructor on a case-by-case basis.

Academic Dishonesty:

Cheating is not tolerated. Plagiarism is copying another person's work without giving appropriate credit; it is cheating. Copying another's exam work or other kinds of cheating will result in a grade of "F" for the course and will be reported to the Department of Geography, the College of Arts and Science, and The University of North Texas.

Disrespectful Behavior Policy:

Disrespectful behavior will not be tolerated, such as tardiness, noisy behavior in class, cell-phones ringing in class, reading in class, sleeping in class, poor attitudes, and grade-mongering. The instructor reserves the right to do what he feels necessary to address and reduce any disrespectful behavior.

Office of Disability Accommodation:

The Department of Geography, in cooperation with the Office of Disability Accommodation, complies with the American with Disabilities Act in making reasonable accommodations for qualified students with disabilities.

I do not give extra credit assignments.