

**Syllabus ANTH 535/ANTH 735**  
**Paleopathology: The History and Archaeology of Disease**  
**Fall 2008**

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**Course Description**

This course will examine the bioarchaeology of disease and human health from prehistoric times through the present, utilizing both the skeletal evidence and historical documentation when available. In all cases we will consider evolutionary, cultural, and biological factors in our examination of prehistoric epidemiology. Topics include: osteological diagnosis of disease including infectious disease, trauma, nutritional deficiencies, dental disease, and developmental defects; the history and origin of infectious diseases such as syphilis, leprosy, and tuberculosis; effects of agriculture, urbanization and slavery on health and disease; and colonization and disease with special emphasis on the New World.

**Textbooks**

1. Roberts, C. and Manchester, K. (2005) *The Archaeology of Disease*. 3<sup>rd</sup> edition. Ithaca: Cornell University Press.
2. Barnes, E. (2007) *Diseases and Human Evolution*. Albuquerque: University of New Mexico Press.

**Requirements and Grading**

**Anth 535**

Grades in the class will be based on three paper presentations/discussions, each with a written summary (25 points each), 1 midterm (100 pts), and a final exam (200 pts) for a total of 375 pts. Letter grades will be awarded based on a percentage of the total points: A = 94% or higher, A- = 93%-90%, B+ = 89%-87%, B = 87%-83% etc.

**Anth 735**

In addition to completing the requirements for ANTH 535, graduate students enrolled in ANTH 735 will complete a comprehensive 40-50 page review paper on a the history of a specific pathology. The paper will include the current understanding of the etiology, modern world-wide distributions and trace what is known about the history of the disease based on genetic and archaeological data. The work will be presented to the class (power point) during the last two weeks of the semester. The final project will represent 30% of the grade for the course.

## University and Course Policies

SFSU maintains a policy of nondiscrimination on the basis race, color, national origin, sex/gender, sexual orientation, religion, and age. Anyone who feels they have experienced discrimination is encouraged to speak with me so the situation can be rectified. Conversations will remain confidential at the request of the student. All students should feel comfortable and welcome in the SFSU community.

Special Needs: Students with disabilities who need reasonable accommodations are encouraged to contact me early in the semester. The Disability Programs and Resource Center is available to facilitate the reasonable accommodations process. The DPRC, located in SSB 110, can be reached by telephone at 338-2472 (voice/TTY) or by e-mail at [dprc@sfsu.edu](mailto:dprc@sfsu.edu).

Class Attendance: Attendance at all lectures is necessary for students to master the material and participate in class discussions.

Missed Exams/Assignment deadlines: Make-ups or extensions are only given in extreme circumstances. You must have an approved excuse and documentation in all cases. Approved excuses include: illness requiring a doctor or clinic visit, religious observances, and University sponsored events. For events such as religious holidays that do not normally have written excuses, please contact me during the first two weeks of the semester if there is an exam conflict. If you unexpectedly miss an exam or scheduled presentation due to unexpected illness, you should contact me as soon as possible by phone or e-mail, bring a doctor's note, and be ready to make-up the exam or assignment within a day or two of your return to campus. For more information on campus policies relevant to missed exams see:

<http://www.sfsu.edu/~senate/documents/policies/F00-212.html>

<http://www.sfsu.edu/~bulletin/current/genpol.htm>

Academic Integrity: All students in the course are expected to adhere to a code of academic integrity and to the University standards for student conduct.

<http://www.sfsu.edu/~bulletin/current/supp-reg.htm#ppg339>

The sanction for cheating will be a failure for that examination or assignment. All cases will be referred to the Judicial Affairs Officer in the Office of Student Affairs who will determine if other formal disciplinary action should be taken. Collaboration in studying and discussion of the course topics is encouraged both inside and outside of class, but all exams and assignments must be the work of one individual unless otherwise specified in the instructions.

## Course Schedule

Topics	Text Readings
Introduction to Paleopathology and Diseases of Bone	Roberts/Man C1 & 2 Barnes C1
Congenital Defects	Roberts/Man C3
<p><b>Reading:</b> Usher BM, and Christensen MN (2000) A sequential developmental field defect of the vertebrae, ribs, and sternum, in a young women of the 12<sup>th</sup> century AD. Amer. J. Phys. Anthropol. 111(3):355-367.</p>	
Dental Disease	Roberts/Man C4
Trauma	Roberts/Man C5
Joint Disease	Roberts/Man C6
<p><b>Reading:</b> Rogers J. et al. (2004) Is osteoarthritis a systemic disorder of bone? Arthritis and Rheumatism. 50: 452-457.</p>	
Diagnosis of Non-specific Indicators (Nutritional: General and Anemias)	Roberts/Man C8
Diagnosis of Non-specific Indicators (Nutritional: Scurvy and Rickets, Hypervitaminosis)	
<p><b>Reading:</b> Ortner DJ, Butler W., Cafarella J., and Milligan L. (2001) Evidence of probable scurvy in subadults from archeological sites in North America. Am. J. Phys. Anthropol. 114: 343-351.</p>	
The Evolution of Infectious Disease	Barnes 2-3
Leprosy	Roberts/Man C7 Barnes C4
Treponemal Disease	Barnes C5
<p><b>Reading:</b> Mays et al. (2003) Two probable cases of treponemal disease of Medieval date from England. Am J Phys Anthropol. 120: 133-143.</p>	
Tuberculosis	Barnes C6
Parasitic Infections and Mycoses	Barnes C7
Paleopathology and Demography of Plague and Malaria	Barnes C8

**Reading:** Soren D. (2003) Can archaeologists excavate evidence of malaria?  
World Archaeology. 35(2): 193-209

Neoplastic Disease

Roberts/Man C9

Trauma

Roberts/Man C5

Paleopathology of Mummies

**Readings:** Wilcox AW. (2004) Mummies and Molecules: Molecular biology meets  
Paleopathology. Clinical Microbiology Newsletter. 24: 57-60.

Aufderheide AC. et al. (2002) Pulmonary Disease in a Sample of Mummies from  
the AZ-75 Cemetery in Northern Chile's Azapa Valley. Chungara, Rivista de  
Antropología. 34: 253-263.

Costantini R. et al. (1994) Paleopathology of the Copper Age Mummy from the  
Val senales glacier. 6(1): 53-70.

Health and Disease – Early Hominids

Barnes C9

Health and Disease-The Agricultural Revolution

Barnes C10

Health and Disease – Urbanization and Industrialization

Roberts and Man C10  
Barnes C11

**Reading:** Gage TB. (2005) Are Modern Environments Really Bad for Us?:  
Revisiting the Demographic and Epidemiological Transitions. Yrbk Phys Anth.  
48: 96-117.

Health in Slave Populations

**Readings:** Singleton TA. (1995) The Archaeology of Slavery in North America.  
Ann. Rev. Anthropol. 24: 119-140.

Null C. et al. (2004) Osteological Indicators of Infectious Disease and Nutritional  
Inadequacy. Chapter 10 of the New York African Burial Ground, Skeletal Biology  
Final Report. GSA Publications.

The Health Consequences of Colonization

**Readings:** Huthchinson DL. And Norr L. (2006) Nutrition and Health at Contact  
in Late Preshistoric Central Gulf Coast Florida. AJPA. 129: 375-386.

Stojanowski, CM. (2004) Population History of Native Groups in Pre- and  
Postcontact Spanish Florida: Aggregation, Gene Flow, and Genetic Drift in the  
Southeastern U.S. Atlantic Coast. AJPA. 123: 316-332.