

ANT 4330 Bioarchaeology
Anthropology 4330, Spring Semester
3:30-4:45 Tues, Thurs in Sanford 401

Professor: Gwen Robbins

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Office hours: 11-12:30; 2-3:30; 10-11 Fri by email; by appointment, or anytime my door is open

Bioarchaeology is the holistic, interdisciplinary, and epidemiological analysis of human skeletal remains from archaeological contexts. In this course, we will survey topics including age and sex estimation, paleo-demography, biocultural stress markers, pathology and trauma, levels of physical activity and evidence for habitual behavior, and paleodietary analyses. Above the level of learning methods of bioarchaeology, students will understand the development of interpretive frameworks from evolutionary and biocultural theory. These frameworks will be examined critically and applied to case studies from human populations in different geographical and temporal contexts. (ALTERNATE YEARS). (NUMERICAL DATA; MULTICULTURAL).

Specific Goals of the Course:

- (1) Become thoroughly grounded in the issues of death and burial- representation, politics, and ethical responsibilities of working with human remains
- (2) Learn how skeletal and dental development proceed in humans and how this schedule is used to estimate age, sex, and demographic parameters.
- (3) Learn to recognize the markers of developmental stress.
- (4) Think critically about human variability, the typological race concept, the theory of clines, and anthropological ideas about biological distance
- (5) Recognize some common pathological conditions in the human skeleton, address concepts of differential diagnosis, and discover the potential of histopathology
- (6) Examine trauma in specific chrono-cultural context and look at what we can understand about society from traumatic injury
- (7) Begin an exploration of the synergistic relationship between ecology and environment, human adaptation, and health
- (8) Develop an appreciation for the importance of the biocultural perspective-
CONTEXT IS EVERYTHING
- (9) Critically examine the role of the scientific method in bioarchaeological research and literature
- (10) Develop critical thinking, research, communication, and presentation skills

Required texts:

1. Katzenberg, M. Anne and Saunders, Shelley R. (2008) Biological Anthropology of the Human Skeleton. Wiley-Liss.
2. Readings available on website

Optional books: available at the bookstore are case studies in Bioarchaeology. These are the most current books published on bioarchaeological topics and are not mandatory reading but could be useful as the basis of a term paper.

Recommended Additional Books:

- Aufderheide, A.C. (1998) Cambridge Encyclopedia of Human Paleopathology. Cambridge University Press.
- Standards for Data Collection from Human Skeletal Remains (1994) Jane Buikstra and Doug Ubelaker, editors. Arkansas Archaeological Survey Research Series No. 44, Fayetteville, AK
- Steckel, R.H. and Rose, J.C. (2002) Backbone of History: Health and Nutrition in the Western Hemisphere. Cambridge: Cambridge University Press.
- White, T. (2000) Human Osteology, 2nd ed. Academic Press.

Grading: Your grade will be based on: 10 Lab Assignments, 1 Osteobiography, 1 group presentation on paleopathology, and 1 paper concerning the topic of that presentation.

(1) LABORATORY EXERCISES. We will have 10 lab assignments during the course of the semester. The labs are designed to provide you with a background in bioarchaeology at a practical level. You will complete data collection in class and plan to spend some time outside of class completing the analytical portion of the assignments. The labs are similar to a field experience so it is very important that you attend and complete the labs.

(2) OSTEOBIOGRAPHY: You will be responsible for completing an osteobiographical project over the course of the semester. Each student will choose one skeletal individual to examine. You will create a profile of that individual based on your observations of age, sex, stature, body mass, congenital conditions, features related to human variation, evidence for developmental disturbance, pathological conditions, and/or traumatic injury. You will turn in a full report with photographic documentation by the end of the term. The results of the osteobiography will be briefly presented (orally) to the class during week 15.

(3) PRESENTATION AND TERM PAPER. At the beginning of the term, students will choose to join one of four groups. Each group will be responsible for research on one of the following topics: Congenital and Developmental Defects, Infectious Disease, Metabolic and Hematopoietic Disorders, or Traumatic Injury. Each student will do independent research on the chosen topic to create a 10-15 page term paper (argumentative essay) to turn in at the end of the semester. Out of this independent research by each group member for their own papers, the group will also work together create a powerpoint presentation to present this subject to the class during weeks 11-14.

If you have any questions about possible topics or about reading materials, citations, etc. you may send email, come and see me during office hours, or make an appointment with me.

Students must choose their topics by the end of Week 3, submit a summary page of the main issues to be covered by the end of Week 5, and a working bibliography by the end of Week 7. Rough drafts will be turned in during Week 10 and returned with suggestions for improvement during Week 12. You must substantially revise and improve this

document before turning it in at the end of the term. The paper should be a minimum of 10 pages in length, maximum 15 pages, double spaced, size 11 Times New Roman, with regular 1" margins. You should use a minimum of 10 books and articles (mostly articles) outside of assigned class readings. Please see me if you are having trouble finding suitable reference materials or alternative perspectives on your topic. You will be graded on the style, grammar, and content of your paper so please take time to edit for clarity.

GRADING: Your *Final Class Grade* will be calculated using the following system:

Osteobiography:	50 points
Lab Exercises:	50 points (10 labs @ 5 points each)
Class Presentation:	30 points (lecture in week 11-14)
Term Paper:	70 points

Office Hours

My office hours are listed on my door and I encourage students to meet with me. I am also available by email or by phone to discuss questions you might have about the class, anthropology major, graduate school, independent study opportunities, or whatever.

Academic Integrity Code

Appalachian State University's Academic Integrity Code is designed to create an atmosphere of trust, respect, fairness, honesty, and responsibility. The Academic Integrity Code outlines "user-friendly" procedures and mechanisms for resolving alleged violations of academic integrity. The Academic Integrity Code is the result of cooperation among Appalachian's faculty, students, and administrators, and promotes a campus dialogue about academic integrity. All members of the Appalachian State University community are responsible for promoting an ethical learning environment.

Students attending Appalachian State University agree to abide by the following Code

- Students will not lie, cheat, or steal to gain academic advantage.
- Students will oppose every instance of academic dishonesty.

Students shall agree to abide by the Academic Integrity Code when submitting the admission application.

Disability Services

Appalachian State University is committed to making reasonable accommodations for individuals with documented qualifying disabilities in accordance with the Americans with Disabilities Act of 1990, and Section 504 of the Rehabilitation Act of 1973. If you have a disability and may need reasonable accommodations in order to have equal access to the University's courses, programs and activities, please contact the Office of Disability Services (828.262.3056 or www.ods.appstate.edu). Once registration is complete, individuals will meet with ODS staff to discuss eligibility and appropriate accommodations.

Attendance Policy

It is the policy of Appalachian State University that class attendance is an important part of a student's educational experience. Students are expected to attend every meeting of their classes and are responsible for class attendance. Since attendance policies vary from professor to professor, students should refer to the course syllabus for detailed information. Regardless of what reasons there may be for absence, students are accountable for all academic activities, and faculty may require special work or tests to make up for the missed class or classes.

In addition, faculty members are required to make reasonable accommodations for students requesting to miss class due to the observance of religious holidays. All ASU students are allowed a minimum of two absences per year for religious observances. Up to two absences for such observances will be excused, without penalty to the student, provided that the student has informed the instructor by email. Notice must be given by the student to the instructor before the absence occurs and no later than three weeks after the start of the semester in which the absence(s) will occur.

Arrangements will be made to make up work missed by these religious observances, without penalty to the student. For the purposes of this policy, ASU defines the term "religious observance" to include religious holidays, holy days, or similar observances associated with a student's faith that require absence from class.

Faculty, at their discretion, may include class attendance as a criterion in determining a student's final grade in the course. On the first day of class, faculty must inform students of their class attendance policy and the effect of that policy on their final grade; both policies must be clearly stated in the class syllabus

A student who does not attend a class during one of its first two meetings may, at the discretion of the academic department, lose her or his seat in that class. Further, if a class meets only one time per week - e.g., a laboratory or an evening class - the student must attend the FIRST meeting of that class or risk losing her or his seat.

Statement on Student Engagement with Courses

In its mission statement, Appalachian State University aims at "providing undergraduate students a rigorous liberal education that emphasizes transferable skills and preparation for professional careers" as well as "maintaining a faculty whose members serve as excellent teachers and scholarly mentors for their students." Such rigor means that the foremost activity of Appalachian students is an intense engagement with their courses. In practical terms, students should expect to spend two to three hours of studying for every hour of class time. Hence, a fifteen hour academic load might reasonably require between 30 and 45 hours per week of out-of-class work.

TENTATIVE COURSE OUTLINE AND SCHEDULE

Please note that there is *flexibility* (!) in this schedule and there may occasionally be some minor changes.

Week 1: January 17, 19		Week 2: January 24, 26	
Ethics and Representation	Read: Deloria ; Klesert and Powell ; Rose	Gwen in Thailand (no class this week)	Read: Scheuer and Black (2004) Ch. 2-3
Week 3: Jan 31, Feb 2		Week 4: February 7, 9	
Skeletal & Dental Development and Age Estimation	Read: Scheuer and Black (2004) Ch. 5; Scheuer (2002)	Paleodemography	Read: Angel (1971); Bocquet-Appel and Naji (2006); McCaa (1998)
Week 5: February 14, 16		Week 6: February 21, 23	
Race and Biological Distance	Read: Ch 16 or 17, Lieberman (2001); Boas (1912)	Biocultural Stress and Health in Prehistory	Read: Ch. 4; Larsen (1995); Buzon (2006)
Week 7: Feb 28, Mar 1		Week 8: March 6, 8	
Diet and subsistence	Read: Ch. 13-14	Dental Developmental Stress Markers	Read: Ch. 10; Goodman et al. (1980); Armelagos et al. (2009)
Week 9: March 13, 15		Week 10: March 20, 22	
Spring Break	Final research for your class presentation	Degenerative conditions	Read: Ch. 6, 12; Rogers et al. (2005); ABGP Ch 11
Week 11: March 27, 29		Week 12: April 3, 5	
Congenital and Developmental Defects	Read: Ortner Ch. 4, 18, 19 ; Merbs , Masnicova	Infectious Disease	Read: Ortner Ch. 10; Robbins et al. (2009); Stone et al. (2009)
Week 13: April 12		Week 14: April 17, 19	
Metabolic and Hematopoietic Disorders	Read: Ortner 14, 15; Mays (2006)	Gwen in Memphis (no class this week-- work on osteobiographies in lab)	
Week 15: April 24, 26		Week 16: May 1, 3	
Traumatic Injury	Read: Ch. 11; Ortner Ch. 8; Lovell (1997)	Project presentations	Read: Ch. 15

Final Exam period is Friday, May 11, 2012 from 9:00 AM -11:30 AM (Papers and Portfolios are due)