

# ANTH 493 Bioarchaeology: Theory and Research Methods

## Fall 2015

**Instructor:** Maranda A. Kles, Ph.D  
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**Class Time and Room:** Mouton Hall 109  
Monday and Wednesday 1:00-2:15 pm

**Office Hours and Location:** Mouton Hall 109B  
Monday 10:00-10:50AM  
Tuesday 10:00-12:00  
Wednesday 2:30-4:00  
Friday 10:00-10:50  
Or by appointment

**Course Description:** Bioarchaeology is the study of human skeletal remains in relation to the archaeological record. This course will provide students with a brief overview and basic understanding of Bioarchaeology. Topics to be covered in class will focus on some of the main issues and/or topics archaeologists, bioarchaeologists, and anthropologists face in their academic and applied research. Students will learn the basic theory and method in Bioarchaeology. Through lectures, readings and discussions, students will examine the reconstruction of skeletal populations for patterns of subsistence, diet, disease, demography, biological relatedness, and physical activity. By the end of the course, students will be expected to recognize the manifestations of these patterns on the human skeleton, and will be able to describe and critique the methods used by bioarchaeologists to gather and interpret information from human skeletal remains. Illustration of each thematic concept including ethics will be covered in course readings and papers.

**Course Objectives:** By the end of this course the student should be able to:

- Describe the scope and application of bioarchaeology
- Discuss the contributions of bioarchaeology to the study of the archaeological record and our understanding of modern human health and variation.
- Describe the manifestations of skeletal attributes of subsistence, diet, disease, demography, biological relatedness, and physical activity.
- Describe and critique the methods used by bioarchaeologists.
- Understand the basic theories of bioarchaeology.

**Required Textbook:** Larsen, Clark S. 2015. Bioarchaeology: Interpreting Behavior from the Human Skeleton, 2<sup>nd</sup> edition. Cambridge: Cambridge University Press. ISBN: 978-0-521-54748-2

Additional readings will be provided by the instructor.

**Grading policy:** There will be 1 plagiarism quiz (10 pts), 1 syllabus quiz (10 pts), 6 reading responses but only 5 will count towards grade (20 pts each), attendance/participation (50pts), and a final paper (250pts) for a total of 425 points. Attendance is taken in the form of reading responses and attendance/participation. Final grades will be:

A	360-425
B	300-359
C	240-299
D	180-239
F	≤238

**Quizzes and assignments:** The plagiarism and syllabus quiz must be completed in the first two weeks of class, both quizzes can (should) be taken repeatedly until the student receives 100% on each. The student must provide a copy of the completed plagiarism quiz to the instructor.

Students are responsible for all of the information provided in the textbook and lecture/discussion. Make-ups for excused absences will be handled on a case-by-case basis depending on the activity missed. Make-ups will not be scheduled unless demonstrated illness, serious emergency, or major scheduling conflict with proof provided to the Instructor.

All assignments are due before class by email to the instructor.

**File formatting:** Word document files are preferred. Name files as follows: Last name\_type of assignment and #\_author, so for example my second reading summary submission on the Wright article would be Kles\_summary2\_Wright.

**Final Paper:** The final paper will require the student to select a topic and write a 15-20-page research paper on that topic. Students must complete all aspects of the final paper in order to pass the class. The 250 point total for this paper is broken down in the following manner:

- ♦ *Paper topic* (15 pts.): You are required to submit a brief statement defining your topic of interest. The statement should identify your topic and the key arguments in your paper. Do some preliminary library research to help you appropriately identify and narrow your research question.
- ♦ *Annotated bibliography* (25 pts.): You are required to submit an annotated bibliography with at least 10 key references for your paper, 5 references must be annotated. These references should clearly relate to your topic. Your annotations should briefly evaluate the source and identify how it will contribute to your research.
- ♦ *Abstract and outline* (15 pts.): You are required to submit a 250 word abstract and an outline of your paper. This abstract should be a condensed version of your paper. It should clearly identify your thesis statement, provide an overview of the key arguments that you make in the paper, identify the evidence you will use, and identify the conclusion of your research. It should be written in a similar fashion to the abstracts for a professional article. The outline (which does not count towards the 250 word total) should demonstrate how you plan to organize your paper and the basic sub-topics you intend to cover.
- ♦ *In-class presentation* (75 pts.): You are required to make an in-class presentation in which you present a 5-7 minute synopsis of your paper, defining your topic, your key arguments, sources, evidence, and conclusions. Your presentation should be organized and practiced. You have to create a Powerpoint document with at least 5 slides. After the presentation, the class will have an opportunity to provide constructive discussion and criticism.
- ♦ *Rough draft and meeting* (20 pts.): You are required to submit a rough draft of the final paper for review and then meet with the professor to discuss.
- ♦ *Final paper* (100 pts.): The final paper should be 15-20 pages (excluding title, abstract and references). Figures and tables are not necessary, but if used they should be included at the end of the paper. Papers should be 1.5 spaced in 11-12 pt. Times New Roman font with 1-inch margins. References should be formatted with an appropriate bibliographic style (i.e. Chicago Manual of Style, American Anthropologist style etc.) If you have questions about appropriate bibliographic format, please come see me.

The purpose of this paper and the associated presentation is to help students develop their presentation and writing skills, with a mind towards professional conference presentations and publications, these skills translate into any number of profession skills needed to succeed outside of the academic world therefore this exercise is useful to all students.

**Attendance:** Taken in the form of attendance (25pts) and participation (25pts). Excused absences include illness with a doctor's note, personal situations with supporting documentation, or academic related events with supporting documentation. If you know in advance you will be absent please notify me. If you will be absent for an extended period of time please contact the Office of Student Life and Conduct (Martin Hall; 482-6276).

**Participation:** Students are expected to attend each class meeting and take an active part in discussion and activities. Active participation requires that you read all assignments and prepare questions and discussion points. I will evaluate your participation on the quality of your contributions, not just the quantity of contributions, participation includes raising insightful questions, discussing articles and movies, and providing critiques of presentations.

**Student behavior, academic honesty, and accommodations:** Students must turn off cell phones during class and computers can only be used for note taking. If a student is found to be violating either of these policies they will first be

asked to stop the activity, if it continues they will be asked to leave the class room.

Any students caught cheating will be receive an "F" for the course. Cheating includes, but is not limited to: working together on online quizzes, using information/ assignments from previous semesters, or plagiarizing. Students are expected to adhere to the University of Louisiana at Lafayette's Code of Academic Honesty (found in the Academic Catalog).

Students needing academic accommodations for a disability must first be registered with the Office of Disability Services (ODS; 482-5252) to verify the disability and to establish eligibility for accommodations. Students with accommodations should contact Dr. Kles at their earliest convenience, accommodations cannot be applied retroactively. Slides are always available for additional review during office hours.

**Course Outline:** General topics and reading assignments. Subject matter and readings are subject to change at the discretion of the professor depending on current events and student interests.

### Lecture and Exam Schedule

Date	Topic	Assignments	Chapter/Pages
August	24	WELCOME! Syllabus; Class Rules; Class Format	
	26	Introduction to Bioarchaeology and Application	Larsen Ch 1 and 11 (pgs 422-427); Larsen 2002 (skim); Knudson and Stoj 2008 (to page 408)
	31	History and Principles of Bioarchaeology	<b>Syllabus and plagiarism quiz completed</b>
September	2	Human Osteology: Growth, Development, and maturation, Age, Sex, and Health	
	7	<b>NO CLASS- LABOR DAY</b>	
	9	Paleodemography and the Osteological Paradox	Larsen Ch 10; Buikstra and Konigsberg 1985; Wright 2003
	14	Stress	<b>Topic and Outline Due</b>
	16	Growth Disruption	Cucina 2002; Grolleau 1997; Nowak 2002; Moggi-Cecchi 1994
	21	Skeletal Infection: Non-specific	Larsen Ch 3 (pgs 66-96); Mittler 1994
	23	Skeletal Infection: Specific	Larsen Ch 3 (pgs 96-114); Merbs 1992 (skim); Tayles and Buckley 2004; Mays 2001
	28	Activity Patterns and Habitual Activities	<b>Bibliography Due</b>
	30	Trauma	Larsen Ch 4 (skim); Hatch 2012; Herskovitz 1996
October	5	Trauma continued	Worne et al 2012; Steadman 2008; Smith 2003
	7	Dietary Reconstruction and Health	Larsen Ch 7 and 8 (skim); Quinn 2008; Stojanowski and Larsen 2007; Ortner 2001

	12	Dental Disease and trauma	<b>Abstract Due</b>	Brown and Molnar 1990; Schulz 1977; Baker et al. 2012
	14	<b>NO CLASS</b>		
	19	Cannibalism/ Trophy Skulls		Bonney and Clegg 2011; Okumura and Siew 2013; Winkelman 1998; Billman et al 2000; Dongoski et al 2000; Malar el al 2000
	21	Vampires, Werewolves, and Zombies		Greguricka et al 2014; Milella et al 2015
	26	Presentations	<b>Presentations</b>	
	28	Presentations		
November	2	Presentations		
	4	Agriculture		Larsen 2006; Armelagos 2005; Lukacs 2005
	9	Mortuary Practices: Preparing the body Burial Practices and Cultural Modification	<b>Rough Draft Due</b>	Pearson 1999
	11	Population affinity/ biodistance		Larsen Ch 9; Relethford 1995 and 2009; Schillaci and Stojanowski 2003
	16	Sex and Gender; Social Status		Crown and Fish 1996; Cucina 2003; Sullivan 2004; Little 1992
	18	<b>Meetings with Professor</b>	<b>Meetings</b>	
	23	Identity		Knudson and Stoj 2008 (p. 408- to end); Buikstra and Scott 2004; Lozada 2011
	25	Migration, Conquest, Colonialism		Blakey 2001; Stojanowski 2004; Kolman 1996; Valentine et al 2015
	30	Ethics		Larsen Ch 11 (pgs 428-432); Walker 2000; Hinsley 1996
December	2	NAGPRA	<b>Final Paper Due</b>	Rose et al 1996; Riding In 1996; Crowther 2000 (skim)
	8-12	<b>EXAM WEEK- No exam for this class</b>		

### Reading summaries

Cannot do summaries on book chapters, must be a summary of an article assigned for class. These summaries are designed to help you better prepare for class and as practice for the annotated bibliography assignment related to the final paper. The purpose of an annotated bibliography is to review the relevance, accuracy, and quality of the source. They are descriptive and critical.

Single-spaced 12 pt font, 1-in margins, approximately ½ a page per article. Should include a complete bibliographic entry in a citation style consistent with your field or one of the articles used in class, such as APA or MLA.

Things to focus on:

- What is the author's main point(s) or argument? What are the subarguments (if any)?
- What are the key concepts? How are key words defined?
- Is the author making any implicit or explicit assumptions?
- Consider and evaluate the authority or background of the author?
- What is the intended audience? Does that impact the presentation or argument in any way?

## EXAMPLES:

**Waite, L. J., Goldschneider, F. K., & Witsberger, C. (1986). Nonfamily living and the erosion of traditional family orientations among young adults. *American Sociological Review*, 51 (4), 541-554.**

The authors, researchers at the Rand Corporation and Brown University, use data from the National Longitudinal Surveys of Young Women and Young Men to test their hypothesis that nonfamily living by young adults alters their attitudes, values, plans, and expectations, moving them away from their belief in traditional sex roles. They find their hypothesis strongly supported in young females, while the effects were fewer in studies of young males. Increasing the time away from parents before marrying increased individualism, self-sufficiency, and changes in attitudes about families. In contrast, an earlier study by Williams cited below shows no significant gender differences in sex role attitudes as a result of nonfamily living.

**Ehrenreich, B. (2001). *Nickel and dimed: On (not) getting by in America*. New York: Henry Holt and Company.**

In this book of nonfiction based on the journalist's experiential research, Ehrenreich attempts to ascertain whether it is currently possible for an individual to live on a minimum-wage in America. Taking jobs as a waitress, a maid in a cleaning service, and a Walmart sales employee, the author summarizes and reflects on her work, her relationships with fellow workers, and her financial struggles in each situation. An experienced journalist, Ehrenreich is aware of the limitations of her experiment and the ethical implications of her experiential research tactics and reflects on these issues in the text. The author is forthcoming about her methods and supplements her experiences with scholarly research on her places of employment, the economy, and the rising cost of living in America. Ehrenreich's project is timely, descriptive, and well-researched.

## Guidelines for Research Papers (15-20 pages in length)

**Abstract:** The title page, which includes the paper title and your name, should be followed by an abstract of 250 words or less. The abstract should be written in complete sentences and should succinctly state the problem your paper is concerned with, as well as your principle observations and conclusions; it should be intelligible without reference to the rest of the paper. It should not contain phrases such as "This paper will..."

**Introduction:** In this section, restate the problem your paper is concerned with and discuss why this topic is worth considering (i.e., what is its significance for the field of bioarchaeology). Briefly introduce any controversies or alternative hypotheses proposed in the literature on your topic. At the end of the introduction it is a good idea to give a brief overview of how the rest of the paper is organized so that the reader may follow the logic of your presentation. Try to keep the introduction as short as possible, one or two pages should suffice.

**Body of the Paper:** In this section you should include a detailed presentation of the data you have collected as a result of your literature review and discuss the conclusions you have arrived at based on your research. If you are evaluating several alternative hypotheses, it is a good idea to use subheadings to divide the discussion into sections dealing with each hypothesis. In each of these sections, include a clear statement of the hypothesis as well as evidence that supports and contradicts it. After discussing the literature on your topic, you should critically evaluate the opinions expressed by various authors. Which hypotheses appear to you to be most likely based on the available evidence? What alternative hypotheses can you think of that have not been considered by previous authors? What kinds of research should be done in the future to rule out some of the alternative hypotheses you have discussed?

**Conclusions:** In this section you should reiterate the important points covered in the body of the paper and summarize the conclusions you have arrived at as a result of your research. References

**Bibliography:** Use the format for references of the *American Journal of Physical Anthropology*. Minimum of 10 citations (more recommended), remember if you did not develop the idea on your own, cite it! Use primary sources, not secondary (e.g., use peer reviewed academic journal articles, not popular online or newspaper articles)

Citation examples:

- In the text of your paper cite references as follows: a study by Verano (2003) revealed .... or Verano (2003:109) states that "tuberculosis was present..."

- In "References Cited" section: Coppa A, Cucina A, Mancinelli D, Vargiu R, Calcagno JM. 1998. Dental anthropology of central-southern Iron Age Italy: the evidence of metric versus nonmetric traits. *American Journal of Physical Anthropology* 107:371-386.

Partial List of Journal Titles to Consult:

- *American Journal of Physical Anthropology*
- *International Journal of Osteoarchaeology*
- *American Antiquity / Antiquity*
- *Current Anthropology*
- *Archaeometry*
- *Journal of Anthropological Archaeology*
- *Journal of Archaeological Science*
- *World Archaeology*
- *Yearbook of Physical Anthropology*
- *Annual Review of Anthropology*

### **Suggested Research Paper Topics**

Below are some suggested topics, but is certainly *not* limited to these alone; rather, the list is meant to provide some possible topics for your consideration. If you wish to consult with me about the topic or references, please feel free to do so and I'll be happy to suggest references and key areas you should look into. Again the referencing style must be in the format of the *American Journal of Physical Anthropology* (similar to APA: <http://www.wmich.edu/library/help/guides/style.php>).

Growth disruption: bone or enamel defects  
 Height as an indicator of stress and growth status  
 Dental development as an indicator of childhood stress  
 Tooth size: its meaning and implications for stress  
 Fluctuating asymmetry (e.g., left/right arm)  
 Iron deficiency anemia  
 Bone mass  
 Dental caries and dental disease  
 Periosteal reactions and health  
 Trepanematosi (e.g., syphilis)  
 Tuberculosis  
 Leprosy  
 Violence  
 Accidental injury (fractures)  
 Cannibalism  
 Osteoarthritis  
 Ancient medical intervention (e.g., surgeries, trepanation)  
 Cultural modification of bone or teeth  
 Bone structure and biomechanics  
 Mastication and cranial form  
 Tooth wear (or microwear): function and tooth use  
 Dietary reconstruction and bone chemistry  
 Chemical indicators of poor health: lead in the environment  
 Population history: DNA or use of discrete (non-metric) traits  
 Migration: isotopic evidence  
 Repatriation and NAGPRA  
 Paleodemography  
 Gender and bioarchaeology

Status and bioarchaeology

Specific regional bioarchaeological case studies (e.g., Santa Barbara Channel Islands, Dickson Mounds, La Florida, Peru/Andes, Nubia)

Shift from foraging to farming

Impact of conquest and/or colonization on health

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Armélagos, G., P. Brown, and B. Turner 2005 Evolutionary, historical and political economic perspectives on health and disease. *Social Science and Medicine* 61: 755-765.

Baker, B., C. Terhune, A. Papalexandrou 2012 Sew Long? The Osteobiography of a Woman from Medieval Polis, Cyprus. In *The Bioarchaeology of Individuals* ed. Stodder, A and A. Palkovich. 151-161

Billman, B., P. Lambert, and B. Leonard 2000 Cannibalism, Warfare, and Drought in the Mesa Verde Region during the Twelfth Century A.D. *Am Antiquity* 65(1): 145-178.

Blakey, M. 2001 Bioarchaeology of the African Diaspora in the America: Its Origin and Scope. *An. Review Anthropology* 30:387-422

Bonney, H. and Clegg, M. 2011 Heads as Memorials and Status Symbols: The Collection and Use of Skulls in the Torres Strait Islands. In *The Bioarchaeology of the Human Head* ed. M. Bonogofsky: 51-66.

Brown, T., and Molnar, S. 1990. Interproximal Grooving and Task Activity in Australia. *American Journal of Physical Anthropology*, 81(4): 545-553.

Buikstra, J. and L. Konigsberg. 1985. Paleodemography: Critiques and controversies. *American Anthropologist* 87:316-333.

Buikstra, J. and R. Scott 2009 Key Concepts in Identity Studies. In Knudson and Stojanowski. *Bioarchaeology and Identity in the Americas*. University Press of Florida. pp. 24-55.

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Crowther, W. 2000 Native American Graves Protection and Repatriation Act: How Kennewick Man Uncovered the Problems with NAGPRA. *J. Land Resources and Environmental Law* 20:269-290.

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