HUMAN OSTEOLOGY

Summer 2018

M, T and Th
1:30 - 3:50 pm
Brown 213

Professor Javier Urcid

Office: Brown 203

Office hours:
W 2 – 3:30 pm (and by appointment)

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Course Objectives

This course reviews in detail human skeletal anatomy for the proper identification of the bones in the body, their biomechanical articulations and their relationship with the muscular system. Focus is then directed to studying forensic methods and techniques for the estimation of age at death, determination of sex, assessment of type of bone remodeling, identification of cultural modifications to bone, and of the impact of environmental processes on bony tissue. Hands-on laboratory sessions will involve team analysis of human remains from the comparative collection in the Archaeology Laboratory at Brandeis.

Learning Goals

The aim of the course is for students to have full command of human skeletal anatomy and of basic forensic techniques, to learn how to do teamwork during the class project, and to learn how to design and carry out scientifically oriented research. The latter involves the empirical collection of data, the use of both quantitative and qualitative analyses, the formulation of explicitly stated hypotheses, and their rejection on the bases of the analysis of evidence. Furthermore, students will have the opportunity to practice their writing skills by submitting an analytical and interpretative report.

Course Outline

Sessions	**Topics**	**Readings**
Jul M 9	Introduction to the course Generalities	None
Jul T 10	The Skull	Schwartz pp. 1-12 and Chapters 2-3

Jul Th 12	The Skull	Schwartz pp. 1-12 and Chapters 2-3
Jul M 16	Dentition	Schwartz Chapter 7
Jul T 17	Postcranium: Axial skeleton	Schwartz Chapter 4
Jul Th 19	Postcranium: Upper extremities	Schwartz Chapter 5
Jul M 23	Postcranium: Lower extremities	Schwartz Chapter 6 Bass 1987 pp. 291-309, Ubelaker 1989 chap. 2
Jul T 24	***First exam*** Lab research project begins	None
Jul Th 26	Assessment of age at death	Ubelaker 1989 pp. 63-95
Jul M 30	Assessment of sex	Ubelaker 1989 pp. 52-60
Jul T 31	Bone Remodeling	Ortner & Putshar pp. 8-28; Ubelaker pp. 107-118; Ortner 1992. Verano and Ubelaker 1991. Wells 1967; Wood et. al. 1992
Aug Th 2	Cultural and natural skeletal modification **Draft of report due**	Ubelaker pp. 96-107
Aug M 6	***Second exam*** **Commented draft returned**	None
Aug T 7	Ethical issues in the Study of Human Remains *Video "Mystery of First Americans"* **(review due on Thursday August 10)**	Owsley-Jantz 2001; Meighan/Gulliford 1992; Meighan/Zimmerman 1994 Jones and Harris 1998
Aug Th 9/F 10	Lab cleaning session **Research paper due Friday August 10 no later than 5pm**	None

Students with extra challenges

If you are a student with a documented disability at Brandeis University and if you wish to request a reasonable accommodation for this class, please see me immediately. Keep in mind that reasonable accommodations are not provided retroactively.

Four-Credit Course (with three hours of class-time per week)
Success in this 4 credit hour course is based on the expectation that students will spend a minimum of 9 hours of study time per week in preparation for class (readings, response to questions, preparation for discussions, writing of papers, preparation for exams, etc.).

Reading assignments
Reading assignments should be completed by the dates indicated above. The assigned chapters from the textbook by Schwartz should be done while studying the skeletal comparative collection in the Lab. Other readings are posted on Latte. Reading of all assigned materials is essential for your engagement in class. Attendance to class is obligatory. Absence from classes will only be accepted in cases of medical or extreme emergencies, and should be notified in person or by email PRIOR to the intended missed class.

Exams
There will be two exams (first exam worth 25% of the final grade, and second exam worth 35% of the final grade). Each examination involves identifying complete and partial human bones and applying forensic techniques to specific bone stations. The exams are accumulative in order to reinforce your knowledge of skeletal anatomy.

Short written assignment
There is one written review of the video *Mystery of the First Americans*. The review should have a maximum of three double-spaced typed and numbered pages. It needs to address three points: 1) A synthetic summary of the core ideas (half page), a critical evaluation of the main points (two pages), and a general assessment of the effectiveness of the video (half page). In order to critically evaluate the main point, students need to engage the authors listed in the bibliography below (Owsley and Jantz 2001; Jones and Harris 1998; Meighan and Gulliford (1992); and Meighan and Zimmerman (1994). If you cite from any source, you should include an extra page listing your bibliography. The review should be submitted electronically and counts 10% of the final grade.

Team Project
The analysis of commingled remains will be presented as group reports. On August 2nd each group will submit a draft of the final paper for revision. The draft will be returned on August 6th. The final version of the paper is due on August 10th no later than 5 pm. Papers should be 5-6 pages of text, including a spreadsheet with the raw data and the bibliography. Photographs, illustrations and diagrams are also encouraged. The report should be submitted in both printed and electronic formats. The report contributes 30% of the final grade. No papers will be accepted after the submission deadline. **Papers should follow the stylistic and formatting guidelines of the SSA (Society for American Archaeology). These guidelines can be accessed at** http://www.saa.org/StyleGuideText/tabid/985/Default.aspx
The grading of the papers will be based on their content, the logic of the argumentation, the relationship between stated hypotheses and data used to test them, the clarity of the writing, and the adherence to the stylistic guidelines.

Summary of grading

First exam	25%
Second exam	35%
Video review	10%
Team project	30%

Use of laptops and tablets

Students are welcome to use a laptop computer or a tablet in class provided it is used for taking notes, for web searches specifically related to the topic being discussed, or for collecting the data for the team project. If a student is found using the laptop of other devises for purposes unrelated to the class, his/her right to use it will be immediately suspended for the rest of the summer session. The use of phones is not permitted.

Academic Integrity

Academic integrity is central to the mission of educational excellence at Brandeis University. Each student is expected to be familiar with, and to follow, the University's policies on academic integrity. Please consult Brandeis University ***Rights and Responsibilities*** (*http://www.brandeis.edu/studentaffairs/srcs/rr/)* for all policies and procedures. All policies related to academic integrity apply to in-class and take home projects, assignments, exams, and quizzes. Students may only collaborate on assignments with express permission. Allegations of alleged academic dishonesty will be forwarded to the Director of Academic Integrity. Sanctions for academic dishonesty can include failing grades and/or suspension from the university.

Readings on LATTE

Jones. D G and R Harris
1998 Archaeological Human Remains. Scientific, cultural and ethical considerations. *Current Anthropology* 39(2):253-264

Meighan, Clement W./ Gulliford, Andrew
1992 Another View on Repatriation: Lost to the Public, Lost to History/ Reply to "Another View on Repatriation". The Public Historian, vol. 14 (3): 39-50.

Meighan, Clement W./ Zimmerman, Larry
1994 Burying American Archaeology/ Sharing Control of the Past. Archaeology, November/December, pp.64-68.

Ortner, Donald, J.
1992 Skeletal Paleopathology: Probabilities, Possibilities, and Impossibilities. In Disease and Demography in the Americas, pp. 5-14. Verano, John, and Douglas Ubelaker, editors. Smithsonian Institution Press, Washington DC.

Ortner, Donald, J. and Walter G.J. Putshar
1981 Identification of Pathological Conditions in Human Skeletal Remains. Smithsonian Institution Press, Washington.

Owsley, Douglas W., and Richard L. Jantz
2001 Archaeological Politics and Public Interest in Paleoamerican Studies: Lessons from Gordon Creek Woman and Kennewick Man. *American Antiquity*, vol. 66 (4): 565-575.

Schwartz, Jeffrey, H.
2007 Skeleton Keys: An Introduction to Human Skeletal Morphology, Development, and Analysis. Oxford University Press, New York (Second edition).

Ubelaker, Douglas, H.
1989 Human Skeletal Remains: Excavation, Analysis, Interpretation. Manuals on Archaeology 2. Taraxacum, Washington.

Verano, John, and Douglas Ubelaker
1991 Health and Disease in the Pre-Columbian World. In Seeds of Change, pp. 209-224. Herman Viola and Carolyn Margolis, editors. Smithsonian Institution Press, Washington DC.

Wells, C.
1967 Pseudopathology. In Diseases in antiquity, edited by Brothwell and Sandison, pp. 5-19. Charles C. Thomas, Springfield Il.

Wood, J. et al
1992 The Osteological Paradox: Problems of Inferring Prehistoric Health from Skeletal Samples [and Comments and Reply] Current Anthropology , Vol. 33: 343-370.

Suggested bibliography for team project

Gejvall, Nils-Gustaf
1963 Cremations. In Science in Archaeology, edited by Don Brothwell and E. Higgs, pp. 379-390. Thames and Hudson, London.

Shipman, P., G. Foster, and M.J. Schoeninger
1984 Burnt Bone and Teeth: An Experimental Study Color, Morphology, Crystal Structure and Shrinkage. Journal of Archaeological Science 11: 307-325.

Williams, Howard
2004 Death Warmed Up: The Agency of Bodies and Bones in Early Anglo-Saxon Cremation Rites Journal of Material Culture, Vol. 9 (3): 263-291. http://mcu.sagepub.com.resources.library.brandeis.edu/cgi/reprint/9/3/263