

**COURSE SYLLABUS**  
**ANTHROPOLOGY 530 / 730: HUMAN OSTEOLOGY PRACTICUM**

**Semester:** Fall 2018

**Section:** 1 (MWF 2:00 - 3:40, FA 538)

**Instructor:** Mark C. Griffin

**Office:** 539 Fine Arts

**Phone:** 338-7519

**E-mail:** mgriffin@sfsu.edu

**Web Page:** <http://online.sfsu.edu/~mgriffin/index.htm>

**Office Hours:** MF 12-2 (appts. reserved at <https://drmarkgriffin.youcanbook.me/>)

**DESCRIPTION:**

This course is an examination of the human skeleton from archaeological, descriptive, and morphometric perspectives. Demographic analysis, normal and abnormal variation, and evaluation of the human skeleton in medicolegal and archaeological contexts is emphasized. Each bone will be examined with a review of normal and abnormal variations. The uses of anthropometric instruments will be demonstrated as well as the methods for estimating age-at-death, sex, ancestry, and population dynamics.

**COURSE REQUIREMENTS:**

**Anth 530**

There are fifteen weekly quizzes (40%), a final cumulative lab practical (10%), and a series of 7 technical reports due over the course of the semester (50%).

**Anth 730**

There are fifteen weekly quizzes (40%), a final cumulative lab practical (10%), critical summaries (15%) and forum contributions (5%) for a series of research articles, and a series of 7 technical reports due over the course of the semester (30%).

**Textbooks:**

White, Tim D. and Pieter A. Folkens. 2012. *Human Osteology, Third Edition*. San Diego: Academic Press.

***The required laboratory manual is available at FedEx Office - 1597 Sloat Blvd. (Lakeshore Plaza). Call ahead to have your copy ready (415-566-0572).***

**Attendance Policy:**

**Be here. You must come to class if you plan to pass the course.**

**QUIZ AND ASSIGNMENT POLICIES:**

Quizzes are administered each Friday at the beginning of class. Each quiz will consist of bone identification, identification of diagnostic features on human bones, and description of bone physiology where appropriate. The quizzes (with the exception of the first week's quiz) will cover material discussed during the previous week. The final exam will consist of a cumulative bone identification quiz. Students enrolled in Anth 730 will be asked graduate-level questions on quizzes.

If you arrive more than five minutes late for a quiz or the final exam, you will receive a zero for the quiz or exam. There are no makeup examinations or quizzes. Written assignments are due at the beginning of class on the stated due dates. Late assignments will not be accepted. Students who do not complete all of the technical reports or the final exam or who miss more than one weekly quiz will receive a "WU" for the course.

**SCHEDULE:**

<b>TOPIC</b>	<b>READING</b>	<b>A730 ASSIGNMENT*</b>
<b>Lecture:</b> Introduction to Osteology	White 1-3	
<b>Laboratory:</b> Anatomical Terminology	Griffin 1-2	
<b>Lecture:</b> Bone Biology	White 4	<u>Due September 7</u> Ruff et al. 2006
<b>Laboratory:</b> Cranium	Griffin 3-5	
<b>Lecture and Laboratory:</b> Cranial Metric Variation	White 15 Griffin 6	<u>Due September 21</u> Komar and Grivas 2008
<b>Lecture and Laboratory:</b> Age, Sex, and Race: Cranium	White pp. 338-346 362-364 Griffin 7-9	<u>Due October 5</u> DeWitte 2009
<b>Lecture:</b> Dental Biology	White 5	<u>Due October 19</u> Griffin 2014
<b>Laboratory:</b> Dentition	Griffin 10-11	
<b>Lecture:</b> Osseous Articulations	White 6-7	<u>Due November 2</u> Schlecht 2012
<b>Laboratory:</b> Axial Skeleton	Griffin 13	
<b>Lecture and Laboratory:</b> Pectoral Girdle, Upper Extremity	White 8-10 Griffin 14	<u>Due November 16</u> Temple and Goodman 2014
<b>Lecture and Laboratory:</b> Pelvic Girdle, Lower Extremity	White 11-13 Griffin 15	<u>Due November 30</u> Perry 2006
<b>Lecture and Laboratory:</b> Postcranial Age, Sex, and Race	White pp. 347-378 Griffin 16-18	<u>Due December 7</u> Jorde and Wooding 2004

**FINAL EXAM – Wednesday 19 December 2018 @ 1:00**

\*Critical Summary and Forum Contribution instructions are on iLearn

## BIBLIOGRAPHY

- Bennett, Kenneth A. 1993. *A Field Guide for Human Skeletal Identification*. 2nd edition. Springfield, Illinois: Charles C. Thomas.
- Bray, Tamara L. and Thomas W. Killion (eds.). 1994. *Reckoning with the Dead: The Larsen Bay Repatriation and the Smithsonian Institution*. Washington: Smithsonian Institution Press.
- Brothwell, D.R. 1981. *Digging Up Bones*. Ithaca, New York: Cornell University Press.
- Buikstra, Jane E. and Douglas H. Ubelaker (eds.). 1994. *Standards for Data Collection from Human Skeletal Remains*. Proceedings of a Seminar at The Field Museum of Natural History. Arkansas Archaeological Survey Research Series No. 44. Fayetteville, Arkansas: Arkansas Archaeological Survey.
- Byrd, Rachael M. 2014. Phenotypic variation of transitional forager-farmers in the Sonoran Desert. *American Journal of Physical Anthropology* 155:579-590.
- Cappella, Annalisa, Alberto Amadasi, Elisa Castoldi, Debora Mazzarelli, Daniel Gaudio, Cristina Cattaneo. 2014. The difficult task of assessing perimortem and postmortem fractures on the skeleton: A blind test on 210 fractures of known origin. *Journal of Forensic Sciences* 59:1598-1601.
- Dewitte, Sharon. 2009. The effect of sex on risk of mortality during the black death in London, A.D. 1349-1350. *American Journal of Physical Anthropology* 139:222-234.
- El-Najjar, Mahmoud Y. and K. Richard McWilliams. 1978. *Forensic Anthropology: The Structure, Morphology, and Variation of Human Bone and Dentition*. Springfield, Illinois: Charles C. Thomas.
- Garvin, Heather M., Nicholas V. Passalacqua. 2012. Current practices by forensic anthropologists in adult skeletal age estimation. *Journal of Forensic Sciences* 57:427-433.
- Gray, Henry. 1973. *Anatomy of the Human Body*. Charles Mayo Goss (ed.) 29th edition, Philadelphia: Lea and Febiger.
- Griffin, Mark C. 2014. Biocultural implications of oral pathology in an ancient central California population. *American Journal of Physical Anthropology* 154:171-188.
- Guatelli-Steinberg, Debbie and John r. Lukacs. 1999. Interpreting sex differences in enamel hypoplasia in human and non-human primates: Developmental, environmental, and cultural considerations. *Yearbook of Physical Anthropology* 42:73-126.
- Harrington, Judith M. and Robert L. Blakely. 1995. "Bones in the basement: Bioarchaeology of historic remains in nonmortuary contexts," in *Bodies of Evidence: Reconstructing History Through Skeletal Analysis*. Edited by Anne L. Grauer, pp. 105-119. New York: Wiley-Liss.
- Hicks, Robert D. 1997. Time crime: Protecting the past for future generations. *FBI Law Enforcement Bulletin* 66(7):1-7.
- İşcan, Mehmet Yaşar (ed). 1989. *Age Markers in the Human Skeleton*. Springfield, Illinois: Charles C. Thomas.
- İşcan, Mehmet Yaşar and Richard P. Helmer. 1993. *Forensic Analysis of the Skull*. New York: Wiley-Liss.
- İşcan, Mehmet Yaşar and Kenneth A.R. Kennedy (eds.). 1989. *Reconstruction of Life from the Skeleton*. New York: Wiley-Liss.
- Jorde, Lynn B. and Stephen P. Wooding. 2004. Genetic variation, classification and 'race'. *Nature Genetics Supplement* 36:S28-S33.
- Komar, Debra A. and Christopher Grivas. 2008. Manufactured populations: What do contemporary reference skeletal collections represent? A comparative study using the Maxwell Museum Documented Collection. *American Journal of Physical Anthropology* 137:224-233.
- Krogman, Wilton Marion and Mehmet Yaşar İşcan. 1986. *The Human Skeleton in Forensic Medicine*. Springfield, Illinois: Charles C. Thomas.

- Martin, Debra L. and Ryan P. Harrod. 2015. Bioarchaeological contributions to the study of violence. *Yearbook of Physical Anthropology* 156:116-145.
- Merbs, Charles F. 1992. A new world of infectious disease. *Yearbook of Physical Anthropology* 35:3-42.
- Ortner, Donald J. and Walter G.J. Putschar. 1985. *Identification of Pathological Conditions in Human Skeletal Remains*. Smithsonian Contributions to Anthropology, Number 28. Washington: Smithsonian Institution Press.
- Ousley, Stephen D., William T. Billeck, and R. Eric Hollinger. 2005. Federal repatriation legislation and the role of physical anthropology in repatriation. *Yearbook of Physical Anthropology* 48:2-32.
- Pearson, Osbjorn M. and Daniel E. Lieberman. 2004. The aging of Wolff's "Law": Ontogeny and responses to mechanical loading in cortical bone. *Yearbook of Physical Anthropology* 47:63-99.
- Perry, Megan A. 2006. Redefining childhood through bioarchaeology: Toward an archaeological and biological understanding of children in antiquity. *Archaeological Papers of the American Anthropological Association* 15:89-111.
- Petaros, Anja, Sabrina B. Sholts, Mario Slaus, Alan Bosnar, and Sebastian K.T.S. Wärmländer. 2015. Evaluating sexual dimorphism in the human mastoid process: A viewpoint on methodology. *Clinical Anatomy* 28:593-601.
- Reichs, Kathleen J. (ed.). 1998. *Forensic Osteology: Advances in the Identification of Human Remains, Second Edition*. Springfield, Illinois: Charles C. Thomas, Ltd.
- Reitsema, Laurie J. and Britney Kyle McIlvaine. 2014. Reconciling "stress" and "health" in physical anthropology: What can bioarchaeologists learn from the other subdisciplines? *American Journal of Physical Anthropology* 155:181-185.
- Ruff, Christopher, Brigitte Holt, and Erik Trinkaus. 2006. Who's afraid of the big bad Wolff?: "Wolff's Law" and bone functional adaptation. *American Journal of Physical Anthropology* 129:484-498.
- Schlecht, Stephen H. 2012. Understanding entheses: Bridging the gap between clinical and anthropological perspectives. *The Anatomical Record* 295:1239-1251.
- Schwartz, Jeffrey H. 2006. Race and the odd history of human paleontology. *The Anatomical Record* 289B:225-240.
- Spradley, M. Katherine and Richard L. Jantz. 2011. Sex estimation in forensic anthropology: Skull versus postcranial elements. *Journal of Forensic Sciences* 56:289-296.
- Stevens, S.D. and U. Strand Viðarsdóttir. 2008. Morphological changes in the shape of the non-pathological bony knee joint with age: A morphometric analysis of the distal femur and proximal tibia in three populations of known age at death. *International Journal of Osteoarchaeology* 18:352-371.
- Temple, Daniel H. and Alan H. Goodman. 2014. Bioarchaeology has a "health" problem: Conceptualizing "stress" and "health" in bioarchaeological research. *American Journal of Physical Anthropology* 155:186-191.
- Thayer, Zaneta M. and Seth D. Dobson. 2010. Sexual dimorphism in Chin Shape: Implications for adaptive hypotheses. *American Journal of Physical Anthropology* 143:417-425.
- Turner, Bethany L. and George J. Armelagos. 2012. Diet, Residential origin, and pathology at Machu Picchu, Peru. *American Journal of Physical Anthropology* 149:71-83.
- Ubelaker, DH and LG Grant. 1989. Human skeletal remains: Preservation or reburial? *Yearbook of Physical Anthropology* 32:249-287.
- Wood, James W., George R. Milner, Henry C. Harpending, and Kenneth M. Weiss. 1992. The osteological paradox: Problems of inferring prehistoric health from skeletal samples. *Current Anthropology* 33(4):343-370.

## Student Learning Outcomes

By the end of the course students will be able to:

- distinguish human bone from nonhuman bone and identify specific skeletal elements from fragmentary material -- you're gonna take a quiz every week doing this
- explain the biological mechanisms of creating age, sex, and population variation in skeletal morphology - you're gonna write seven technical reports doing this
- apply the concepts of demographic analysis and normal versus abnormal variation to critically analyze research studies of human skeletal variation - you're gonna write seven technical reports doing this
- evaluate demographic data in regard to determination and interpretation of skeletal sex, age, and population affiliation - you're gonna write seven technical reports doing this
- discuss examples of the interacting effects of culture, environment, and biology on skeletal morphology - you're gonna write seven technical reports doing this

## Disability Statement Policy

'Students with disabilities who need reasonable accommodations are encouraged to contact the instructor. The Disability Programs and Resource Center (DPRC) is available to facilitate the reasonable accommodations process. The DPRC is located in the Student Service Building and can be reached by telephone (voice/TTY 415-338-2472) or by email ([dprc@sfsu.edu](mailto:dprc@sfsu.edu))."

## University Withdrawal Policy

The Withdrawal deadline occurs two weeks after the semester starts. After this deadline, students must petition for a Withdrawal, or receive a non-passing grade for a class if they do not complete the requirements of the course. Withdrawals are permitted only for serious and/ or compelling reasons. In the last three weeks of the semester, students must be able to document the reason for their withdrawal.

SF State fosters a campus free of sexual violence including sexual harassment, domestic violence, dating violence, stalking, and/or any form of sex or gender discrimination. If you disclose a personal experience as an SF State student, the course instructor is required to notify the Dean of Students. To disclose any such violence confidentially, contact: The SAFE Place - (415) 338-2208; [http://www.sfsu.edu/~safe\\_plc/](http://www.sfsu.edu/~safe_plc/) Counseling and Psychological Services Center - (415) 338-2208; <http://psyservs.sfsu.edu/> For more information on your rights and available resources: <http://titleix.sfsu.edu>