COURSE AND CONTACT INFORMATION
Course: ANTH 6491, ADVANCED HUMAN OSTEOLOGY (graduate)
Semester: Fall 2013
Time: Monday 5:30 to 8:30 PM
Location: National Museum of Natural History, Carolyn Rose Seminar Room

FACULTY
David R. Hunt, PhD and Marilyn R. London, MA
Phone: (301) 238-1319 (DRH) (301) 238-1596 (MRL – leave a message)
E-mail: huntd@si.edu and londonm@si.edu
Office hours: Monday 4:30 to 5:30 PM, and arranged

COURSE DESCRIPTION
Advanced Human Osteology builds on the skills developed in a basic human osteology course to give students the opportunity to refine and extend their knowledge. The class covers advanced techniques in determination of age, sex, ancestry, and pathological conditions using the skeleton. Instruction in the use of statistics, craniometrics and osteometrics, use of FORDISC, and other techniques are covered. Collections are made available to the class during class time and during the week so that students can apply new knowledge and practice new techniques as presented in class. Each student will produce a project and present it in class; these should be designed to increase the knowledge of the entire class.

COURSE PREREQUISITE(S)

ANTH 145/146 (Forensic Anthropology) or equivalent basic human osteology course

TEXTS
Required books:

Waldron, Tony, 2009. *Paleopathology*. Cambridge University Press.

Scheuer, Louise, Sue Black, and Maureen C. Schaefer, 2008. *Juvenile Osteology: A Laboratory and Field Manual*. Academic Press.

Articles relevant to the topics are listed by week in the Course Schedule below. There may be other readings assigned if new publications (articles) of import become available during the semester.

Recommended readings:

Bass, William M., 2005. *Human Osteology*, 5th edition. Missouri Archaeological Society.

Bowden, Bradley S. and Joan M. Bowden, 2010. *An Illustrated Atlas of the Skeletal Muscles*, 3rd edition, Morton Publishing Company.

Ubelaker, Douglas H., 1999. *Human Skeletal Remains*, 3rd edition. Taraxacum.

White, Tim D. and Pieter A. Folkens, 2005. *The Human Bone Manual*. Elsevier Academic Press.

LEARNING OUTCOMES:
As a result of completing this course, students will be able to:
1. Build on previous knowledge of human skeletal anatomy
2. Acquire an understanding of skeletal structure and function
3. Recognize normal versus abnormal bone
4. Develop technical and observational skills for human osteology
5. Learn the basics of professional research and teaching

GRADING
Grades will be based on the quizzes, midterm, final, and class presentations, as well as classroom participation. Grading will follow University guidelines.

- Quizzes (30%)
- midterm exam (20%)
- project (20%),
- final exam (20%);
- class participation (10%)

NOTE: IN ACCORD WITH UNIVERSITY POLICY, THE FINAL EXAM WILL BE GIVEN DURING THE FINAL EXAM PERIOD AND **NOT** THE LAST WEEK OF THE SEMESTER. ALSO, WE CANNOT OFFER THE EXAM ON THE GWU MAKE-UP DAY.

CLASS POLICIES

Class participation involves:
- Attendance of all classes. There will be no make-up presentations.
- Self-directed hands-on study. (This is required.) Skeletal material will be available in the St. Hoyme Room (Room 325) Monday through Friday from 10:00 AM to 5:30 PM. Study time in the St. Hoyme room must be scheduled with the faculty. If the St. Hoyme Room is full, you may ask Dr. Hunt or Professor London for other study space.
- Readings, as listed below. The articles will be available in the Anthropology Library. Please do not remove them from the library.
- Participation in class lab sessions

- Participation in class assignments, including demonstrations (see below) and lab quizzes
- Midterm and final
- Weekly quizzes
- Make-up tests are not normally given. They will only be considered in extreme cases and will require documentation such as a doctor's excuse that indicates incapacity. Excuses are accepted at the discretion of the instructors.

Undergraduate Student Projects:

Students will choose a topic no later than October 1. Students will develop a teaching device/ training module/ heuristic model demonstrating the application of bone anatomy or identification, an aging technique, or a sexing technique. These cannot be electronic (no Power Point presentations); they must be in poster or 3-D form. The undergraduate class presentations will be made on December 3. Each class presentation will be 10 minutes *maximum*; you will not be given additional time.

Graduate Student Projects:

Students will choose an article on a method or technique used in human skeletal biology, no later than October 1. Faculty will approve an article of your choice, or a list of suggested articles can be provided by the faculty. Each student will be expected to discuss one article, demonstrate the method or technique to the class, and give an opinion on its effectiveness and reliability (based on testing the technique on a selected group of specimens). The graduate student class presentations will be made on December 2. Each class presentation will be 10 minutes *maximum*; you will not be given additional time. A 10 to 15 page paper on the topic is due December 9.

University Policy on Religious Holidays:

1. Students should notify faculty during the first week of the semester of their intention to be absent from class on their day(s) of religious observance;
2. Faculty should extend to these students the courtesy of absence without penalty on such occasions, including permission to make up examinations;
3. Faculty who intend to observe a religious holiday should arrange at the beginning of the semester to reschedule missed classes or to make other provisions for their course-related activities.

ACADEMIC INTEGRITY

We personally support the GW Code of Academic Integrity. It states: “Academic dishonesty is defined as cheating of any kind, including misrepresenting one's

own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information." For the remainder of the code, see: http://www.gwu.edu/~ntegrity/code.html

SUPPORT FOR STUDENTS OUTSIDE THE CLASSROOM
DISABILITY SUPPORT SERVICES (DSS)
Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office at 202-994-8250 in the Marvin Center, Suite 242, to establish eligibility and to coordinate reasonable accommodations. For additional information please refer to: http://gwired.gwu.edu/dss/

UNIVERSITY COUNSELING CENTER (UCC) 202-994-5300
The University Counseling Center (UCC) offers 24/7 assistance and referral to address students' personal, social, career, and study skills problems. Services for students include:

- crisis and emergency mental health consultations
- confidential assessment, counseling services (individual and small group), and referrals
  http://gwired.gwu.edu/counsel/CounselingServices/AcademicSupportServices

SECURITY
In the case of an emergency, if at all possible, the class should shelter in place. If the building that the class is in is affected, follow the evacuation procedures for the building. After evacuation, seek shelter at a predetermined rendezvous location.

Course schedule:

Topics for the semester are listed below. Students should anticipate weekly quizzes, a midterm examination, and a final exam. We will try to adhere to this schedule, but there may be modifications, which will be announced.

August 26 - Introduction to the course. Non-credit quiz and review. Osteology review; hand and foot bones.

September 2 – HOLIDAY: NO CLASS

September 9 – Hands and feet

September 16 – Statistics; Demography; Fine Art of Baloney Detection

September 23 – Human Dentition – Identification, development, tooth wear, tooth loss, dental disease, and cultural modifications

Waldron, Chapter 12.

September 30 – Growth and Development; Nutritional and environmental effects

October 7 – Age Determination – Immature; Developmental defects in the skeleton

Ubelaker, D.H., 1987. Estimating age at death from immature human skeletons: an overview. *Journal of Forensic Sciences* 32(5):1254-1263.

Aufderheide, Arthur C. and Conrado Rodriguez-Martin, 1998. Congenital anomalies. In *The Cambridge Encyclopedia of Human Paleopathology*, Cambridge University Press, pp. 51-76.

Barnes, Ethne, 1994. The development of defects. In *Developmental Defects of the Axial Skeleton in Paleopathology*, University Press of Colorado, pp. 9-34.

Waldron, Chapter 10.

October 14 – Non-metric traits; Determination of sex.

Ousley, S. D., 1995. Should we estimate biological or forensic stature? *Journal of Forensic Sciences* 33:534-539.

St. Hoyme, Lucille E. and Mehmet Yaşar İşcan, Determination of Sex and Race: Accuracy and Assumptions. In: Reconstruction of Life from the Skeleton, Mehmet Yaşar İşcan and Kenneth A. R. Kennedy, eds., New York: Alan R. Liss, pp. 53-93.

Finnegan, M. and M.A. Faust, 1974. Bibliography of human and non-human non-metric variation. (Through p. 19 of the text. You can find this on-line.)

Waldron, Chapters 3 & 4.

October 21 – Midterm; Age Determination – Mature; Age-related conditions

Martrille, L., D.H. Ubelaker, C. Cattaneo, F. Seguret, M. Tremblay, and E. Baccino, 2007. Comparison of four skeletal methods for the estimation of age at death on white and black adults. *Journal of Forensic Sciences* 52(2):302-7.

Galera, V., D.H. Ubelaker, and L.A. Hayek, 1998. Comparison of macroscopic cranial methods of age estimation applied to skeletons from the Terry Collection. *Journal of Forensic Sciences* 43(5):933-9.

October 28 – Osteometrics; Occupational Stress; Joints and Physiology

November 4 – Ancestry (morphological traits)

Sauer, Norman J., 1992. Forensic anthropology and the concept of race: if races don't exist, why are forensic anthropologists so good at identifying them? *Social Science Med* 34(2):107-111.

November 11 – Craniometrics; Fordisc

Willey, P. and Tony Falsetti, 1991. Inaccuracy of height information on driver's licenses. *Journal of Forensic Sciences* 36(3):813-819.

Ousley, S. D. and R. L. Jantz, 1997. The Forensic Data Bank: Documenting skeletal trends in the United States. In *Forensic Osteology* (2nd edition), edited by K. Reichs, Springfield, IL: C.C. Thomas, pp. 297-315.

November 18 – Trauma; Taphonomy; Non-infectious Pathological Conditions

Ortner, Donald J., 1992. Skeletal paleopathology: probabilities, possibilities, and impossibilities. In *Disease and Demography in the Americas*, J.W. Verano and D.H. Ubelaker, eds. Smithsonian Press, pp. 5-14.

Waldron, Chapters 1 & 2; Chapters 5 through 9.

Haglund, William D. and Marcella H. Sorg, 1997. Introduction to forensic taphonomy. In *Forensic Taphonomy: The Postmortem Fate of Human Remains*, CRC Press, pp. 1-9.

Haglund, William D. and Marcella H. Sorg, 1997. Method and theory of forensic taphonomy research. In *Forensic Taphonomy: The Postmortem Fate of Human Remains*, CRC Press, pp. 13-26.

November 25 – Infectious disease; Congenital anomalies; Undergraduate student presentations; Summary of course

December 2 –Applications of Skeletal Biology (Archaeology, historic cemeteries, museums, forensic, mass disaster); Field recovery; Commingling; Graduate student presentations

December 3 – Make-up Day

December 9-10 – Reading Days

December 17 – Final Exam