ANT 4525 - Section 4166 - Human Osteology

Classroom Location: Turlington Hall, 1208J (Osteology Laboratory)
Class Meeting Time: M,W,F | Period 4 (10:40 AM - 11:30 AM)

Section 4166 Instructor: Amanda Friend, MA
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Lab Office Hours: Monday, 1:00-4:00pm (held in Osteology Lab)
Office Location: B327

Section 2452 Instructor: Sarah Zaleski, MA, RPA
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Lab Office Hours: Wednesday, 1:00-4:00pm (held in Osteology Lab)
Office Location: B327

TA: Andreana Cunningham
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Lab Office Hours: Thursday, 9:00am-12:00pm (held in Osteology Lab)

Course Description:
This course introduces the concepts and methods used in the analysis of human skeletal remains from forensic and archaeological contexts. The skills learned and practiced in this course provide a strong foundation for more advanced studies in comparative anatomy, bioarchaeology, forensic anthropology, paleoanthropology, and paleopathology. This course includes lectures, online resources, workshops, and significant independent laboratory study time.

Student Learning Objectives:
Upon successful completion of this course, students will be able to:
1) identify whole and fragmentary human skeletal elements;
2) distinguish between human and non-human bone;
3) estimate age, sex, ancestry, and stature of an individual;
4) estimate MNI (minimum number of individuals);
5) evaluate osteological applications in fields such as comparative anatomy, bioarchaeology, forensic anthropology, paleoanthropology, and paleopathology.

Success in this course usually requires <u>at least</u> 10 hours per week of <u>independent</u> study time <u>in the laboratory</u> in preparation for the quizzes. Performance on the lab practical quizzes and final exam is directly related to the amount and quality of your independent study. YOU SHOULD DROP THIS CLASS IF YOU CANNOT COMMIT THIS TIME!

Texts:

Required:

White TD, Folkens PA (2005) *The Human Bone Manual*. Academic Press.

Recommended:

Bass WM (1995 or 2005) *Human Osteology: A Laboratory and Field Manual*. Missouri Archaeological Society.

Buikstra JE, and Ubelaker D (1994) *Standards for the Data Collection from Human Skeletal Remains*. Fayetteville, AR: Arkansas Archeological Survey.

White TD, Black MT, Folkens PA (2011) *Human Osteology, 3rd ed*. Academic Press.

Additional materials will be posted online (Canvas). The course website contains all pertinent information for the course, including the syllabus, handouts, and grades.

Course Requirements:

1) Twelve (12) cumulative practical quizzes (100 points each; lowest grade is dropped, totaling 1100 points)
2) One (1) cumulative final practical exam (200 points; The grade for the final practical exam **cannot** be dropped.)
3) Eight (8) Lab Workshops (25 points each, totaling 200 points)
4) Seven (7) Online Quizzes (50 points each, totaling 350 points)
5) Osteology Notebook (100 points; due April 20; guidelines below)
6) Application Article Presentation (50 points; April 18, 23, 25; guidelines below)

Practical Quizzes and Final Exam

Quizzes and exams will involve the identification of fragmentary skeletal remains and anatomical features as well as short-answer questions. The format for quizzes and the final exam will be discussed the first day of class. Quizzes may not be retaken, but the **lowest quiz score will be dropped at the end of the term**. The grade for the final practical exam **cannot** be dropped.

Lab Workshops

Students will complete lab workshops on craniometrics, dental analyses, sex, age, ancestry, stature estimations, and MNI estimation. During class time, the instructor will demonstrate proper techniques. Students will complete a series of measurement and/or non-metric assessment stations in the osteology lab outside of class time. The majority of stations will be devoted to the above-mentioned osteological analyses; however, certain stations will cover musculature and observation of bony muscle attachment sites so that students develop a soft tissue context for human bones. Workshop due dates are listed in the schedule below. Please note that while students may work together, each student must complete each station's activities and submit their own answer sheet for each workshop.

Online Quizzes
Before and after lectures, students should review the study guides presented in Canvas. Students will complete seven Online Quizzes available in Canvas. The quizzes will be due on Wednesdays (dates listed in schedule below). Quizzes should be completed without referencing any study materials, unless otherwise directed.

Osteology Notebook Guidelines
Each student in this course is responsible for compiling a notebook of their own labeled drawings of skeletal elements and notes. Required notebook items are listed below and will be discussed in class.

1) Drawings
    a. Complete articulated human skeleton (Anterior View)
    b. Five (5) skull views (Anterior, Posterior, Lateral, Inferior, and Endocranial Views) with bones, osteometric points, and sutures labeled
    c. Anterior view of orbit with bones labeled
    d. Drawings or Schematics showing hand articulations with bones labeled
    e. Drawings or Schematics showing foot articulations with bones labeled
2) Lists, flow charts, tables, annotated drawings, or some combination thereof that record your process for identifying fragments (*for at least 5 of the following groups*)
    a. Ribs
    b. Vertebrae
    c. Teeth
    d. Carpals
    e. MCs
    f. Tarsals
    g. MTs
    h. Pedal and manual phalanges
    i. Long bone shafts
3) Quizzes (12); For each incorrect answer, provide an annotation highlighting the reasoning process for correct identification. After each quiz, provide a study plan of action for the following quiz.
4) Lab Workshops (8); For each incorrect answer, provide an annotation highlighting the reasoning process.

Application Article Presentation Guidelines

Each student in this course is responsible for selecting an article (problem-oriented study as opposed to a review article) that highlights human osteological applications from a peer reviewed journal such as *American Journal of Physical Anthropology*, *International Journal of Osteoarchaeology*, *Journal of Forensic Sciences*, etc. You will create a PowerPoint to present in class that highlights the following aspects of the study:

1) Bony elements(s) analyzed (include a figure depicting the element(s), features, and landmarks)
2) Materials
3) Methods
4) Results
5) Importance/broader impacts
6) Article Citation

Each student will create 3 discussion questions regarding their article.

Students must email their selected article to the instructor for approval by the deadline listed in the schedule below (March 12). The instructor is available to discuss article selections and presentations over email or by appointment. Time allotments for presentations will be discussed in class.

Grading:

The sum of all raw scores of the practical quizzes (minus the lowest score), final exam, lab workshops, online quizzes, osteology notebook, and application article presentation will be divided by the total points possible multiplied by 100 (2000 points possible: 1100 quiz points [1200 minus the 100 from the lowest dropped score] plus 200 final exam points plus 200 lab workshop points plus 350 online quiz points plus 100 osteology notebook points plus 50 application article presentation points). **There will be no extra credit offered.** Final grades will be distributed according to the following scale:

A	**≥ 92.50%**	**C**	**72.50% - 76.49%**
A-	**89.50% - 92.49%**	**C-**	**69.50% - 72.49%**
B+	**86.50% - 89.49%**	**D+**	**66.50% - 69.49%**
B	**82.50% - 86.49%**	**D**	**62.50% - 66.49%**
B-	**79.50% - 82.49%**	**D-**	**59.50% - 62.49%**
C+	**76.50% - 79.49%**	**F**	**≤ 59.49%**

Other Policies:

Cell phones, iPods, and all other mobile device must be silenced during class. The use of recording devices is prohibited except with prior Instructor permission.

Students are expected to attend all lectures with assigned readings completed. **No lecture notes or PowerPoint slides will be distributed, under any circumstance.** If a student is unable to attend class, it is **the student's responsibility** to get the notes from a classmate.

Plagiarism or cheating in any form is subject to university policy as outlined by the Dean of Students (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/)**.**

Students requesting classroom accommodation must first register with the Dean of Students Office (http://www.dso.ufl.edu/drc). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. This documentation must be presented to the instructor by the end of the second week of classes, in order for accommodations to be made within a timely manner.

Quizzes, exams, and assignments missed due to a documented illness or emergency may be rescheduled; however, **48 hours prior notice** should be given to the Instructor, and documentation must be supplied. In the case of unexpected emergencies, the Instructor must be notified in advance, or as soon as possible thereafter (within a reasonable period of time), and the student should provide documentation immediately following the absence. Please note that make-up work will be the equivalent but not the exact same as the original assignments/quizzes/exam.

The following rules constitute a contract between student and Instructor. Your signature below represents your commitment to upholding this contract, and your understanding that failure to do so will lead to point loss and/or dismissal from the course.

Please print, read and sign this page. Turn it in to the Instructor by the date noted on the schedule. Failure to turn in a signed form will result in loss of Osteology Lab privileges.

Rules for the Osteology Laboratory (Turlington Hall 1208J):

- Students must sign in and out of the lab on every visit outside of scheduled class time.
- The room is to remain secure at all times. Access is controlled by a keypad entry lock; students in this course will be granted access (first 6 digits of UF ID, then press the star key). Lock the room if you are the last to leave – even if you only leave briefly. **If the room is found unlocked, all students will be penalized.**
- Visitors are not allowed in the lab at any time. NO EXCEPTIONS!
- No specimens are to leave 1208J Turlington Hall (Osteology Laboratory).
- Food and drink are prohibited in the laboratory.
- Photography of course materials or skeletal remains is strictly prohibited.
- The teaching laboratory is not a social center. Be respectful of other students' study time.
- Be respectful of all Anthropology Department staff and other Turlington Hall staff.
- Osteology students are restricted to specimens in the plastic boxes on the back wall of the teaching laboratory, and to additional materials only as provided by the Instructor.
- Above all, please remember that all skeletal remains, laboratory equipment, and other teaching materials are to be treated with the utmost respect.

Transgression of these rules will lead to point loss and/or dismissal from the class.

I _____ (print name) certify that I have read the above rules and understand that failure to comply will lead to point loss and/or dismissal from the course.

Signed: _____ UFID: _____

Date: _____

Month	Date	Day	Topic	Required Reading (White & Folkens 2005)
Jan	8	M	Course outline and expectations; Anatomical terms **Drop/Add**	Ch. 1; 3; 6
Jan	10	W	Joints and Muscles **Drop/Add**	
Jan	12	F	Bone biology and Development **Drop/Add**	Ch. 4
Jan	15	M	**NO CLASS**	
Jan	17	W	Bones of the Skull	**Signed Form Due** Ch. 7; Ch. 9 (155-156)
Jan	19	F	**PRACTICE QUIZ**	
Jan	22	M	Bones of the Skull (cont'd)	Ch. 7; Ch. 9 (155-156)
Jan	24	W	**Online Quiz 1 Due** Skull: foramina and nerves	**See Canvas** Online handouts
Jan	26	F	**QUIZ #1**	
Jan	29	M	Craniometrics **Workshop 1 Available in Lab**	Online handouts
Jan	31	W	Dentition	Ch. 8; Online handouts
Feb	2	F	**QUIZ #2**	
Feb	5	M	**Workshop 1 Due** Dentition (cont'd); Human vs. Non-human remains **Workshop 2 Available in Lab**	Ch. 8; Online handouts
Feb	7	W	**Online Quiz 2 Due** Vertebral Column	**See Canvas** Ch. 9; Ch. 14 (241-245)
Feb	9	F	**QUIZ #3**	
Feb	12	M	**Workshop 2 Due** Vertebral Column (cont'd)	Ch. 9; Ch. 14 (241-245)
Feb	14	W	Ribs and sternum	Ch. 10
Feb	16	F	**QUIZ #4**	
Feb	19	M	Shoulder Girdle: Clavicle and Scapula **Workshop 3 Available in Lab**	Ch. 11; Online handouts
Feb	21	W	**Online Quiz 3 Due** Upper Limb: Humerus, Radius, Ulna	**See Canvas** Ch. 12
Feb	23	F	**QUIZ #5**	

Feb	26	M	**Workshop 3 Due** Upper Limb – Humerus, Radius, Ulna (cont'd)**;** Hand: Carpals, Metacarpals, Phalanges	Ch. 12, 13
Feb	28	W	**Online Quiz 4 Due** Hand: Carpals, Metacarpals, Phalanges (cont'd)	**See Canvas** Ch. 13
Mar	2	F	**QUIZ #6**	
Mar	5	M	**NO CLASS**	
Mar	7	W	**NO CLASS**	
Mar	9	F	**NO CLASS**	
Mar	12	M	Os coxae **Workshop 4 Available in Lab**	Ch. 14 (246-253) **Application Article Selection Due**
Mar	14	W	**Online Quiz 5 Due** Lower Limb: Femur, Tibia, Fibula, Patella	**See Canvas** Ch. 15
Mar	16	F	**QUIZ #7**	
Mar	19	M	**Workshop 4 Due** Lower Limb: Femur, Tibia, Fibula, Patella (cont'd); Foot: Tarsals, Metatarsals, Phalanges **Workshop 5 Available in Lab**	Ch. 15,16
Mar	21	W	**Online Quiz 6 Due** Foot: Tarsals, Metatarsals, Phalanges (cont'd)	**See Canvas** Ch. 16
Mar	23	F	**QUIZ #8**	
Mar	26	M	**Workshop 5 Due** Biological Profile: Sex **Workshop 6 Available in Lab**	Ch. 19; Online handouts
Mar	28	W	**Online Quiz 7 Due** Biological Profile: Age	**See Canvas** Ch. 19; Online handouts
Mar	30	F	**QUIZ #9**	
Apr	2	M	**Workshop 6 Due** Biological Profile: Ancestry **Workshop 7 Available in Lab**	Ch. 19; Online handouts
Apr	4	W	Biological Profile: Stature	Ch. 19; Online handouts
Apr	6	F	**QUIZ #10**	
Apr	9	M	**Workshop 7 Due** Trauma, Pathology, and Taphonomy	Ch. 5, 17
Apr	11	W	Guest Lecture	

Apr	13	F	**QUIZ #11**	
Apr	16	M	MNI and commingling **Workshop 8 Available in Lab**	Ch. 2, 18
Apr	18	W	**Application Article Presentations**	Articles on Canvas
Apr	20	F	**QUIZ #12**	**Osteology Notebook Due**
Apr	23	M	**Workshop 8 due** **Application Article Presentations**	Articles on Canvas
Apr	25	W	**Application Article Presentations**	Articles on Canvas
May	1	T	**Cumulative Final Practical Examination**	**3:00-5:00pm in Osteology Lab**