

# ANT 4525 - Human Osteology

**Classroom Location:** Turlington Hall, 1208J (Osteology Laboratory)

**Class Meeting Time:** Tuesday, Period 5 (11:45-12:35)

Thursday, Periods 5-6 (11:45-1:40)

**Instructor:** Sarah Zaleski, MA, RPA

**Email:** sarahmzaleski@ufl.edu

**Lab Office Hours:** Wednesday, 1:00-4:00 (held in Osteology Lab)

**Office Location:** TBD

**TA:** Andreana Cunningham

**Email:** ascunningham@ufl.edu

**Lab Office Hours:** TBD (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, class 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) discuss and evaluate osteological applications in fields such as comparative anatomy, bioarchaeology, forensic anthropology, paleoanthropology, and paleopathology.

**Success in this course usually requires at least 10 hours per week of independent study time in the laboratory 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:

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

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.

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) Online Quizzes (50 points each, totaling 400 points)
- 4) Osteology Notebook (200 points; due Nov 21; guidelines below)
- 5) Application Article Presentation (100 points; Nov 28 and Nov 30; 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.

### **Online Quizzes**

In preparation for upcoming lectures, students should review the assigned readings for the following week and the study material presented in Canvas. Competency will be demonstrated through eight Online Quizzes available in Canvas. The quizzes will be due on Fridays (dates listed in schedule below), and the purpose is to ensure that you are prepared to discuss the material in upcoming classes. 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. Two (2) views of each bone (and tooth) with landmarks and features labeled
  - b. Complete articulated human skeleton (Anterior View)
  - c. Five (5) skull views (Anterior, Posterior, Lateral, Inferior, and Endocranial Views) with landmarks and features labeled
  - d. Anterior view of orbit with bones labeled
  - e. Drawings or Schematics showing hand and foot articulations with bones labeled
- 2) Lists, flow charts, tables, annotated drawings, or some combination thereof that record your process for identifying human skeletal fragments
- 3) Class notes
- 4) Quizzes (12); for each incorrect answer, provide an annotation highlighting the reasoning process for correct identification.

### **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 to pose to the class regarding their article.

Students must email their selected article to the instructor for approval by the deadline listed in the schedule below (Oct 17). 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, online quizzes, osteology notebook, and application article presentation will be divided by the total points possible (2000 points possible: 1100 quiz points [1200 minus the 100 from the lowest dropped score] plus 200 final exam points plus 400 online quiz points plus 200 osteology notebook points plus 100 application article presentation points). Final grades will be distributed according to the following scale:

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

## **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 and exams 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, and the student should provide documentation immediately following the absence.

**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, the last group listed on the sign in sheet 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: \_\_\_\_\_**

<b>Month</b>	<b>Date</b>	<b>Day</b>	<b>Topic</b>	<b>Required Reading (White &amp; Folkens 2005)</b>
Aug	22	T	Course outline and expectations; Anatomical terms <b>Drop/Add</b>	Ch. 1; 3; 6
Aug	24	Th	Joints, Muscles, Bone biology, and Development <b>Drop/Add</b>	Ch. 4
Aug	25	F	<b>Online Quiz #1</b>	<b>See Canvas</b>
Aug	29	T	<b>QUIZ #1</b>	<b>Signed Form Due</b>
Aug	31	Th	Bones of the Skull	Ch. 7; Ch. 9 (155-156)
Sep	1	F	<b>Online Quiz #2</b>	<b>See Canvas</b>
Sep	5	T	<b>QUIZ #2</b>	
Sep	7	Th	Skull: foramina and nerves; Craniometrics; Dentition	Ch. 8; Online handouts
Sep	12	T	<b>QUIZ #3</b>	
Sep	14	Th	Dentition (cont'd); Human vs. Non-human remains	Ch. 8; Online handouts
Sep	15	F	<b>Online Quiz #3</b>	<b>See Canvas</b>
Sep	19	T	<b>QUIZ #4</b>	
Sep	21	Th	Vertebral Column; Ribs and sternum	Ch. 9; Ch. 14 (241-245); Ch. 10
Sep	22	F	<b>Online Quiz #4</b>	<b>See Canvas</b>
Sep	26	T	<b>QUIZ #5</b>	
Sep	28	Th	Shoulder Girdle: Clavicle and Scapula; Upper Limb: Humerus, Radius, Ulna	Ch. 11; Ch.12; Online handouts
Sep	29	F	<b>Online Quiz #5</b>	<b>See Canvas</b>
Oct	3	T	<b>QUIZ #6</b>	
Oct	5	Th	Upper Limb – Humerus, Radius, Ulna (cont'd); Hand: Carpals, Metacarpals, Phalanges	Ch.12; Online handouts; Ch. 13
Oct	6	F	<b>Online Quiz #6</b>	<b>See Canvas</b>
Oct	10	T	<b>QUIZ #7</b>	
Oct	12	Th	Os coxae	Ch. 14 (246-253)
Oct	13	F	<b>Online Quiz #7</b>	<b>See Canvas</b>

Oct	17	T	<b>QUIZ #8</b>	<b>Application Article Selection Due</b>
Oct	19	Th	Lower Limb: Femur, Tibia, Fibula, Patella	Ch. 15; Online handouts
Oct	20	F	<b>Online Quiz #8</b>	<b>See Canvas</b>
Oct	24	T	<b>QUIZ #9</b>	
Oct	26	Th	Foot: Tarsals, Metatarsals, Phalanges	Ch. 16
Oct	31	T	<b>QUIZ #10</b>	
Nov	2	Th	Biological Profile: Sex and Age	Ch. 19; Online handouts
Nov	7	T	<b>QUIZ #11</b>	
Nov	9	Th	Biological Profile: Ancestry and Stature	Ch. 19; Online handouts
Nov	14	T	Trauma, Pathology, and Taphonomy	Ch. 5, 17
Nov	16	Th	MNI and commingling	Ch. 2, 18
Nov	21	T	<b>QUIZ #12</b>	<b>Osteology Notebook Due</b>
Nov	23	Th	<b>NO CLASS</b>	
Nov	28	T	<b>Application Article Presentations</b>	Articles on Canvas
Nov	30	Th	<b>Application Article Presentations</b>	Articles on Canvas
Dec	5	T	Review	
Dec	15	F	<b>Cumulative Final Practical Examination</b>	<b>10:00-12:00 in Osteology Lab</b>