

070:358 and 070:359 Spring 2016
INTRODUCTION TO HUMAN OSTEOLOGY WITH LABORATORY
M TH 10:55 am – 1:55 pm, BIO 201A

INSTRUCTOR: Dr. Rob Scott
Office: Biosciences Building 210, Douglass Campus
Office hours: Monday, Thursday, and Friday from 9:15 am to 10:30 am
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COURSE DESCRIPTION: Introduction to Human Osteology and accompanying laboratory (6 credits) is an intensive course in human skeletal anatomy essential to the advanced study of forensic anthropology, paleoanthropology, and bioarchaeology. We will examine bone biology, growth and development, gross skeletal and soft tissue anatomy, and paleopathology as well as indicators of age and sex for the purposes of identification. Six hours of lecture and laboratory instruction are required per week in addition to independent laboratory study time.

COURSE OBJECTIVES: Students will become proficient in identifying complete and fragmentary bones and teeth of the human skeleton as well as distinguishing human from non-human remains. Students will be exposed to the process of developing inferences about individuals and populations based on skeletal samples through a series of laboratory exercises. These exercises will include making relevant observations and/or measurements, summarizing data with descriptive statistics and simple graphical representations, analyzing and interpreting osteological data, and the use of comparative methodology. Students will become familiar with means of determining demographic data on sex, age, and health based on skeletal and dental indicators. Finally, students will be exposed to topics in bone biology, growth and development, functional morphology, and soft tissue anatomy that enrich their understanding of osteological samples in the paleoanthropological, archaeological, and forensic contexts.

LEARNING GOALS:

- Identify complete and fragmentary human bones and teeth
- Distinguish human and nonhuman skeletal remains
- Develop inferences about individuals and populations from skeletal remains
- Analyze osteological data
- Master human bony anatomy
- Understand major muscle origins and insertions

PREREQUISITE: *070:102 Introduction to Human Evolution* or equivalent.

REQUIREMENTS FULFILLED: *070:358 and 070:359 Introduction to Human Osteology with Laboratory* fulfills the skeletal biology/human paleontology distribution requirement for the Evolutionary Anthropology major.

CREDIT BREAKDOWN: 3 credits are awarded for 070:358 (Lecture) and 3 credits are awarded 070:359 (Lab). Concurrent enrollment in both is required.

CLASS MEETINGS: M Th 10:55 am-1:55 pm, BIO 201A (break from 12:15 pm-12:35 pm)

ABSENCES: In the case of absences, notification must be via the University-wide Absence Reporting System (<https://sims.rutgers.edu/ssra/>) prior to the absence and **documentation** must be available after the absence. Please note that notification of the absence must be *prior to the absence and retroactive notifications are not acceptable. Without notification (before) and documentation (after), a missed pop quiz or missed recitation section will not be excused.*

ACADEMIC INTEGRITY: All students must strictly adhere to the Rutgers Academic Integrity Policy, which identifies and defines violations including cheating, fabrication, facilitating academic dishonesty, plagiarism, and denying others access to information or material. Full definitions of each of these violations, as well as the consequences of violating the Academic Integrity Policy, are available as part of the student handbook. For details see: <http://academicintegrity.rutgers.edu/academic-integrity-policy/>. *You are responsible for knowing what constitutes plagiarism and academic dishonesty.*

GRADED WORK:

Eleven practical, cumulative quizzes will be given at the beginning of class for which you will be expected to identify bone fragments and features (e.g., soft tissue attachments), estimate age and sex, and recognize pathological conditions (the lowest quiz grade will be dropped). The three exams will consist of practical and written portions and the lowest grade will be dropped. We will conduct laboratory exercises, applying your osteological skills to research problems. There will be a final paper (~8 pages) and presentation (12 minutes) on a relevant topic of your choice. You are also expected to prepare a course notebook complete with lecture notes and illustrations due at the end of the semester. Note: Scheduling conflicts with quizzes and exams must be resolved prior to enrolling in the course; make-up quizzes will only be given under extenuating circumstances. Grades will be assigned in 070:358 and 070:359 based on all graded work.

ACCOMMODATIONS:

Students with disabilities requesting accommodations must follow the procedures outlined at <https://ods.rutgers.edu/students/registration-form>. Full disability policies and procedures are at <https://ods.rutgers.edu/>.

GRADING:

Assignment, Quiz, or Exam	Percent of Final Grade
11 Quizzes (equal weight, drop lowest)	~ 40%
3 Written Exams (cumulative, equal weight, drop lowest)	~ 15%
3 Practical Exams (cumulative, equal weight, drop lowest)	~ 20%
Laboratory Exercises (equal weight)	~ 15%
Paper/Presentation (5-8 pages)	~ 5%
Notebook	~ 5%
TOTAL	100%

REQUIRED TEXTBOOKS:

Human Osteology, 3rd edition by Tim White

ASSIGNED READINGS are in Human Osteology by Tim White

SCHEDULE OF LECTURES, LABS, QUIZZES, AND EXAMS

DATE	QUIZ?	LECTURE, LABS, EXAMS	REQUIRED READING
Jan 21		Course Overview; Anatomical & Directional terms; Skull I: Osteometric Points	Ch. 1, 2, 4
Jan 25		Skull II: Morphology	Ch. 4
Jan 28	Quiz 1	Bone biology	Ch. 3
Feb 1		LABORATORY 1 (Paleoanthropology: Cranial morphometrics (Archaics vs Moderns))	Ch. 4
Feb 4	Quiz 2	Dentition: Identification, morphology, and function	Ch. 5
Feb 8		LABORATORY 2 (Bioarchaeology: Dental morphometrics)	Ch. 5
Feb 11	Quiz 3	Dentition: Identification, growth and development, and pathology	Ch. 5, 18: 381-389
Feb 15		Axial skeleton: vertebral column, ribs, sternum	Ch. 6, 7
Feb 18	Quiz 4	Shoulder Girdle: Clavicle and Scapula	Ch. 8
Feb 22		Arm: Humerus, Radius, Ulna	Ch. 9
Feb 25	Quiz 5	Os Coxae	Ch. 11
Feb 29		Sacrum, Femur, and Patella	Ch. 11, 12
Mar 4	Quiz 6	Tibia and Fibula	Ch. 12
Mar 7		<i>Open study and exam review</i>	
Mar 10		EXAM I	
Mar 14		SPRING BREAK	
Mar 17		SPRING BREAK	
Mar 21		LABORATORY 3 (Levers and Osteology)	
Mar 24	Quiz 7	Hand: Carpals, Metacarpals, Phalanges	Ch. 10
Mar 28	Quiz 8	Foot: Tarsals, Metatarsals, and Phalanges	Ch. 13
Mar 31	Quiz 9	Determination of Sex, Estimation of Age	Ch. 18
Apr 4		LABORATORY 4 (Forensic Anthropology: Age and Sex Determination)	
Apr 7		Estimation of Stature; Paleodemography; Indicators of Health and Activity; Osteological and Dental Pathology	Ch. 18, 19
Apr 11		LABORATORY 5 (Bioarchaeology: Stature, Paleodemography, Health and Activity, Evolution and Spread of Diseases)	Ch. 18, 19
Apr 14	Quiz 10	<i>Open study (AAPA meeting)</i>	

Apr 18		Inferences about Ancestry	Ch. 18
Apr 21	Quiz 11	Review and Practice Exam	
Apr 25		EXAM II	
Apr 28		Begin Student Presentations	
May 2		NOTEBOOKS DUE; PAPERS DUE; Student Presentations continued	
May 5		Exam III, 8 am	

STUDENT WELLNESS SERVICES

Just In Case Web App

<http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ www.rhscaps.rutgers.edu/

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / www.vpva.rutgers.edu/

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation:

<https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

Scarlet Listeners

(732) 247-5555 / <http://www.scarletlisteners.com/>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.