

COURSE OUTLINE
Anthropology 9118A-001
Advanced Human Skeletal Biology
Fall 2019

Lectures: Tuesdays 9:30-12:30

Classroom: SSC-2257

Instructor: Dr. Andrea Waters-Rist

Office: SSC-3427

Office hours: Monday 10:30-1:00

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Teaching Assistants: Hana Salahuddin

Office: SSC-3308

Office hours: Tuesday 4:30-6:30

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Credit value: 0.5 credit

1 lecture hour and 2 laboratory hours.

Calendar Course Description:

An exploration of the role that human skeletal material plays in providing anthropological information. Emphasis will be placed on the analytical techniques used in osteology and odontology for: measuring biological adaptability in archaeological populations; creating individual biographies; the reconstruction of cultural activities.

Antirequisites: None.

Prerequisites: Anthropology 2226A/B and registration in year 3 or 4 in any module.

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. The decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Course Syllabus:

This course involves the in-depth study of human skeletal and dental remains. Human skeletal biology, or osteology, is essential for research in biological or forensic anthropology. This course will cover several topics including bone and tooth biology and histology, skeletal and dental growth and development, metrics and non-metric traits, estimation of core osteobiographical characteristics such as age-at-death, sex, and stature, data collection techniques and written reporting, an introduction to paleodiet, paleodemography, taphonomy, and paleopathology, and, ethical considerations. At the completion of this course students will be expected to have mastered techniques for conducting, interpreting, and reporting upon human osteological analyses. After week 1, each week's class will consist of approximately one hour of lecture and two hours of hands-on laboratory time.

A full course schedule including a week-by-week breakdown of topics and assigned readings will be available on the course's OWL site before the first day of class.

Learning Outcomes:

Upon successful completion of this course, students will be able to do the following.

- Identify all bones, teeth, and major morphological features, of the human skeleton, in complete and fragmented conditions.
- Identify common non-metric traits to build towards an understanding of the range of normal human skeletal variation.
- Describe the cellular properties and appearance of bone and teeth.
- Utilize measurement instruments and data recording forms and techniques.
- Distinguish non-adult from adult skeletal remains.
- Estimate non-adult and adult age-at-death using dental and skeletal methods.
- Estimate sex from adult cranial and post-cranial material.
- Estimate stature and body size using anthropometric measurements.
- Explain methods for the estimation of biological ancestry (population affiliation) and biodistance.
- Recognize commonly encountered pathological and traumatic lesions in bones and teeth as well as taphonomic conditions that can mimic pathological lesions.
- Describe basic paleodiet and paleodemography parameters and problems.

- Present an informed consideration of ethical dimensions of human bioarchaeology research.

Course Materials:

The following textbook is required: The Human Bone Manual by TD White and PA Folkens. 2005. Academic Press.

Other required readings will be will posted on OWL and accessible by the first day of class under the Course Readings feature.

Evaluation:

Your course grade will be based on six items. Note, make-up tests and assignment deadline extensions will only be offered if (a) you are using one of your self-reported absences allowed between September 2019 and April 2020 (this does not apply to final exams) or (b) when the Academic Counselling Office approves special accommodation. There will be no exception to this. The six evaluated items are as follows.

Bone Bell-Ringer Test number 1. This test is worth 20% of your final grade and will occur at the beginning of class on October 1st. Students who arrive late will not be permitted to make-up the stations they missed. This test will examine your knowledge of the skull, dentition, and histology. Bell-ringer tests consist of timed stations at which students are asked to identify any of the following: bones and teeth, in complete or incomplete (fragmented) states; landmarks on bones and teeth; anatomical region/side of the body from which they derive; bone or tooth cells or zones of cellular activity; other relevant aspects of the remains taught in lecture. Use of electronic devices will not be allowed. More information will be made available to students on the course OWL site.

Bone Bell-Ringer Test number 2. This test is worth 20% of your final grade and will occur at the beginning of class on October 22nd. Students who arrive late will not be permitted to make-up the stations they missed. This test will examine your knowledge of the post-cranial skeleton. Bell-ringer tests consist of timed stations at which students are asked to identify any of the following: bones and teeth, in complete or incomplete (fragmented) states; landmarks on bones and teeth; anatomical region/side of the body from which they derive; bone or tooth cells or zones of cellular activity; other relevant aspects of the remains taught in lecture. Use of electronic devices will not be allowed. More information will be made available to students on the course OWL site.

Laboratory Report number 1. This laboratory report is worth 10% of your final grade and is due by 11:59pm on Friday October 11th. An electronic copy must be submitted via OWL with a hard copy to be submitted to the Department's assignment mailbox the following week day. This laboratory assignment involves examination of bone and tooth histology to understand their microscopic structure and how they function as living tissues during life. The report should be 1300-1500 words in length (5-6 double-spaced pages), not including tables, figures, or references cited. More information will be made available to students on the course OWL site.

Laboratory Report number 2. This laboratory report is worth 10% of your final grade and is due by 11:59pm on Friday November 15th. An electronic copy must be submitted via OWL with a hard copy to be submitted to the Department's assignment mailbox the following week day. This laboratory assignment involves the estimation of the age-at-death and sex of two skeletons. The report should be 1300-1500 words in length (5-6 double-spaced pages), not including tables, figures, or references cited. More information will be made available to students on the course OWL site.

Laboratory Report number 3. This laboratory report is worth 10% of your final grade and is due by 11:59pm on Friday November 29th. An electronic copy must be submitted via OWL with a hard copy to be submitted to the Department's assignment mailbox the following week day. This laboratory assignment involves the use of metrics for stature estimation and non-metrics for ancestry estimation. The report should be 1300-1500 words in length (5-6 double-spaced pages), not including tables, figures or references cited. More information will be made available to students on the course OWL site.

In order to pass this essay course, the student must exhibit a minimal level of competence in writing and the appropriate level of knowledge of the content of the course. All laboratory reports may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>).

Research Essay. Graduate students will write a research essay instead of taking the final exam. The essay is worth 30% of your final grade. It is due on December

15th by 11:59pm. Topics for the research paper must be related to human skeletal biology and be selected in consultation with the instructor (in office hours or by email). Topics must critically engage with a current line of inquiry or debate, and not be merely a literature review. Essays should be 3500-4000 words (approximately 14-16 double-spaced pages), not including the title page, abstract, references cited, figures, tables, figure/table captions, and/or appendices. An abstract is required that should be no more than 250 words. More details will be made available to students on the course OWL site.

Course Specific Statements and Policies:

Statement on Seeking Special Accommodations:

No accommodations will be granted retroactively more than 5 days after an assignment's due date or a missed quiz or test. Please see your academic counsellor immediately if you will be seeking accommodations based on medical or compassionate grounds. If using one of the two self-reported absences allowed between September 2019 and April 2020 you are required to resume academic responsibilities within 48-hours from the time of the absence form's submission via the online portal (or at 8:30am the following morning if submitted after 4:30pm), and to contact your Instructor with 24-hours of resuming academic responsibilities to reschedule the missed assignment deadline or quiz/test.

Unless these accommodation procedures are followed, laboratory assignments submitted past the due date will be subjected to a 5% penalty of the assignment grade per 24-hour period (this includes weekends) and will no longer be graded after five late days (the assignment will receive an automatic grade of zero). If these accommodation procedures are not followed the student will not be permitted to make-up the bone bell-ringer tests and will receive a grade of zero.

Statement on Plagiarism:

Students must write their assignments in their own words. Whenever students take an idea from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing. It is also a scholastic offence to submit the same work for credit in more than one course. Plagiarism is a major scholastic offence.

Policy on Laptops and Cellphones in Class:

Laptops are permitted for note-taking in class but if it is observed that students are on social networking sites, they will be asked to close the laptop and will not

be permitted to use it for the remainder of the class. Be sure that all cellphones are turned off at the beginning of class.

Institutional Statements and Policies

All students should familiarize themselves with Western's current academic policies regarding accessibility, plagiarism and scholastic offences, and medical accommodation. Please refer to Western's Academic Calendar:

<http://westerncalendar.uwo.ca/academicPolicies.cfm?SelectedCalendar=Live&ArchiveID=>