Anthropology 3338F/9104A:
Skeletal Biology
Course Outline
September – December 2015

Instructor: Dr. Alexis Dolphin
Class Time: Mondays 9:30 to 12:30pm, SSC 2257
Office Hours: Tuesdays 12:30 to 2:30pm, SSC 2257
Phone: 519-661-2111 x81128
Email: adolphin@uwo.ca
TA: Jordon Munizzi
Office/Lab Hours: 4:30 to 7:30pm, SSC 2257

Course Description:

The goal of this lab-intensive course is to explore the field of biological anthropology known as Osteology, or the study of human skeletal (and dental) remains. Students will learn standard osteological techniques for identifying individuals and making connections between them and the populations from which they are derived. The methodological skills learned in this course will prove essential to anyone aiming to pursue studies in biological anthropology, bioarchaeology or forensic anthropology.

This course will cover several topic areas including: 1) bone and tooth biology; 2) skeletal and dental growth/development; 3) data collection techniques; 4) estimations of identifying characteristics (e.g. age, sex, stature); and 5) an introduction to paleopathology.

In order to build a thorough understanding of each of these topic areas several weeks of this course will be dedicated entirely to building students’ familiarity with skeletal anatomy through hands-on work with remains during in-class lab periods. At the completion of this course students will be expected to have mastered techniques for conducting, interpreting, and reporting on osteological data.
Learning Outcomes:

Upon successful completion of this course, students will be able to:

- Identify all bones (and teeth) of the human skeleton, and their morphological features.
- Examine and interpret variation in skeletal and dental morphology as it relates to an individual's sex, age-at-death, stature, biological affinity, and other life history variables.
- Demonstrate an understanding of the ethical treatment of human remains.
- Apply their knowledge of human osteology and morphological diversity, taphonomy, and the concept of ‘osteobiography’, to the completion of a standard osteological report.

Required Texts:


Course Requirements:

10% Bell-ringer #1 (September 28)
10% Bell-ringer #2 (October 19)
10% Bell-ringer #3 (November 2)
10% Bell-ringer #4 (November 16)
30% Osteological Report (December 9)
30% Final Exam

*all requirements are to be completed by undergraduate and graduate student participants*

Prerequisites:

Anthropology 2226.

Bell-Ringers (10% each; 40% total):

There will be FOUR bell-ringers given in this course. The bell-ringer is a timed test meant to assess the practical knowledge gained during the preceding weeks of lectures and labs. The test will consist of stations at which students will be asked to identify any of the following: a) bones and teeth; b) landmarks on bones and teeth; c) side of the body they are derived from; d) sex and/or age-at-death of the individuals; or other relevant aspects of the remains derived from material examined throughout the course. Mastering skeletal and dental anatomy is key to your success in the course. Osteology is about developing a tactile art as much as it about memorization of anatomical features and biological processes. Thus, although your attendance during extra lab time and/or my office hours is not mandatory, it is highly recommended. Students who fail to attend a bell-ringer will not be allowed to make it up at a later date unless the student has made prior arrangements with the instructor or provides proof of illness. There are absolutely no exceptions (so please don’t ask).
**Osteological Report (30%)**

The Osteological Report will allow students to gain experience with the writing of an in-depth analysis of a human skeleton. Working in pairs, your report will be based on careful observation and the rigorous application of standard osteological techniques learned in class and/or through readings. You and a partner will analyze the skeleton together, but provide separate written reports. Reports will include textual descriptions, as well as drawings/black and white photographs, tables and figures of relevant data, and a bibliography. Reports must be typed, 12 font, Times New Roman, double spaced, with 1" margins, include a title page, and be checked for spelling and grammatical errors. Use citations and reference them in your bibliography where appropriate following the AJPA style guide.

Your Osteological Report will include the following:

1. **Introduction** – include any contextual information regarding the remains, an overview of your paper’s organization, and a brief summary of your methods and findings, along with a hint of your ideas for further research.
2. **Preservation** – describe any modifications after death (and how these may influence your analysis).
3. **Age-at-Death** - methods used, elements observed, summary of determination.
4. **Sex** - methods used, elements observed, summary of determination.
5. **Biological Affinity** – use metric and nonmetric traits to comment on possible biological affinity.
6. **Conclusion** - include a summary of your findings, as well as specific suggestions regarding at least 3 proposed avenues of further research that you recommend being conducted with these remains.
7. **Bibliography** – no minimum, but must follow American Journal of Physical Anthropology (AJPA) style guide (see WebCT).
8. **Appendices** - include any figures or tables cited in your text, as well as your original data sheets from “Standards for Data Collection from Human Skeletal Remains”.

Examples of osteological reports will be provided for your reference. **Osteological Reports are due electronically by midnight on Wednesday December 9th via the Assignments tab on WebCT. Hard-copies of reports (including your inventory sheets) must also be placed in the Anthropology department Dropbox (on wall outside of SSC 3326) before midnight on Wednesday December 9th. Your work will not be graded unless I receive both a hardcopy and a digital copy.**

**LATE REPORTS WILL NOT BE GRADED.**

*NOTE: GRADUATE STUDENT PARTICIPANTS WILL COMPLETE THEIR SKELETAL ANALYSES AND OSTEOLGICAL REPORTS INDEPENDENTLY*

**Final Exam (30%)**

There will be one final exam (to be scheduled by the Registrar (worth 30% of final grade) for this course. The content of this exam will be derived primarily from lectures, lab time and the mandatory course readings. The format of exams may include multiple choice, short answer and short essay questions. Students who fail to attend an examination will not be allowed to write a make-up exam (please refer to Academic Policies/Regulations in the UWO Academic Calendar) unless prior arrangements have been made with the instructor. No electronic devices will be allowed at the exam.
Course Outline:

Below is a list of topics to be discussed and of readings required for this course. Class time will be made up of ~1 hour of lecture/discussion and ~2 hours of hands-on lab time with human remains. Depending on class discussions and on any unforeseen events (e.g. snow days) the lectures may deviate slightly from this schedule, but all of the reading assignments will be fair game for the final exam nonetheless. All assigned readings are from White, Black and Folkens (WBF) and Buikstra and Ubelaker (BU), unless otherwise listed.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Topic</th>
<th>Bell Ringer</th>
<th>Readings</th>
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<tbody>
<tr>
<td>Sept 14</td>
<td>Introduction, Anatomical Terms and Bone Biology</td>
<td></td>
<td>WBF 1,2,3 BU 1, 2</td>
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<tr>
<td>Sept 21</td>
<td>Vertebrae, Thorax, and Shoulder Girdle</td>
<td></td>
<td>WBF 6,7,8</td>
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<td>Sept 28</td>
<td>The Appendicular Skeleton</td>
<td>X</td>
<td>WBF 9,10,12,13</td>
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<td>Oct 5</td>
<td>The Pelvis</td>
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<td>WBF 11</td>
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<tr>
<td>Oct 12</td>
<td>THANKSGIVING – NO CLASS</td>
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<tr>
<td>Oct 19</td>
<td>The Dentition</td>
<td>X</td>
<td>WBF5 BU 5 (47-54)</td>
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<td>Oct 26</td>
<td>The Cranium</td>
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<td>WBF7</td>
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<td>Nov 2</td>
<td>Sex &amp; Age-at-Death Determination</td>
<td>X</td>
<td>WBF 18 BU 3, 4</td>
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<td>Nov 9</td>
<td>Stature, Non-Metrics, and Ancestry</td>
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<td>WBF 18, 21 BU 6 (63-68), 7, 8</td>
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<td>Nov 16</td>
<td>Paleopathology (disease &amp; activity)</td>
<td>X</td>
<td>WBF19, 20 BU 5, 10, 11</td>
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<td>Nov 23</td>
<td>Field Excavation &amp; Ethics + Odd-fellows</td>
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<td>WBF 15, 16</td>
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<td>Nov 30</td>
<td>Odd-fellows</td>
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<td>Dec 7</td>
<td>Exam Review + Odd-fellows</td>
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<td>Dec 9</td>
<td>Osteological Report due by midnight (digital + hard copy with forms)</td>
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NOTE: Bell-ringers will start at 9:30am SHARP and be followed by a lecture/lab related to the new topic for that week.
Policies and Information:

**Accessibility**
Students who require special accommodations for disabilities should make a formal request through Student Development Services as early in the semester as possible. Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111, x 82147 for any specific question. See also: http://www.sdc.uwo.ca/ssd/

**Support Services**
A range of student services is available at:
https://studentservices.uwo.ca/secure/index.cfm
Other resources include Student Support Services: http://westernusc.ca/services
Students who are in emotional/mental distress should refer to Mental Health@Western http://www.uwo.ca/uwocom/mentalhealth for a complete list of options about how to obtain help.

**Missed Deadlines and Missed Exams – medical accommodation**
Occasionally illness or other medical issues make it impossible to meet deadlines or to take exams as scheduled; in such cases adequate documentation must be submitted to Academic Counseling of your home faculty, according to the terms of the Senate policy regarding medical accommodation as specified at:
http://www.uwo.ca/univsec/handbook/appeals/accommodation_medical.pdf
Providing such documentation is submitted, reasonable effort will be made to accommodate your situation. Without this, assignments cannot be accepted.

**Late Penalties**
Note that you must complete the course requirements according to the timeline provided in this document as no extensions will be granted.

**Use of Electronic Devices (including laptops)**
No electronic devices of any kind (including but not limited to cell phones, Blackberries, iPods, other MP3 players, voice recorders, etc.) will be allowed during tests or examinations. Laptops may only be used during lectures for note taking or other course-related purposes; cell phones, iPods, MP3 players and other such devices are not to be used during class. Voice recorders (digital or tape) are not allowed without express permission. *Disruptive use of electronic devices during class or laboratory time may result in a request that you leave the classroom.*

**Plagiarism and Scholastic Offences**
Scholastic offences are taken seriously and students are directed to read the appropriate policy, including the definition of what constitutes a Scholastic Offence, at the following website:

www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf
Students must write their assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. **Plagiarism is a major academic offense.**

All required work 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). Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Evidence of suspected plagiarism will be reported to the Department Chair, who will give the student an opportunity to respond to the allegation. Where a determination of plagiarism has been made, the Chair shall assess appropriate penalties up to and including a zero on the assignment and failure in the course. The case will be reported to the Dean, who may assess additional penalties.

**Email Etiquette**

Remember that email communication with the instructor and teaching assistant should be formal and professional. Emails will be answered between 9am and 5pm on Mondays through Fridays.

**Other**

Back-ups: Make sure to regularly back up all your work on an external site (such as the SSC Network H: drive, external hard drive, sends it to yourself in e-mail, etc.) in case your computer crashes or is stolen. This should be standard practice for anything you do on your computer. No extensions for any assignments will be granted because of computer malfunctions or lost files.

**Useful Websites:**

Libraries: [http://www.lib.uwo.ca/](http://www.lib.uwo.ca/)
Office of the Registrar: [http://www.registrar.uwo.ca](http://www.registrar.uwo.ca)
Student Development Services: [http://www.sdc.uwo.ca/](http://www.sdc.uwo.ca/)
Policy on Accommodation for Medical Illness
[https://studentservices.uwo.ca/secure/index.cfm](https://studentservices.uwo.ca/secure/index.cfm)
Accommodated Exams:
Anthropology Department: [http://anthropology.uwo.ca/uprog.html](http://anthropology.uwo.ca/uprog.html)