

Adult Osteology Workshop: June 9 – July 4, 2025

University of South Florida Course Numbers

ANT 4525 – Human Osteology & Osteometry (3 credits)

ANT 4930 – Bioarchaeology in Transylvania (3 credits)

ANG 6525 – Human Osteology (3 credits)

PROJECT DIRECTOR:

Jonathan Bethard, PhD, RPA, D-ABFA

Associate Professor

University of South Florida

jbethard@usf.edu

LAB ASSISTANT:

Ciele Rosenberg, MA

Workshop description:

The aim of this project is to evaluate how major political events physically impact local Transylvanian populations. For that purpose, we have been studying human remains excavated from numerous cemeteries from Hungarian-speaking Székely communities located in eastern Transylvania. During the summer of 2025 we will concentrate our efforts on analyzing skeletons excavated from the collapsed medieval church located in the community of Patakfalva.

The osteology workshop will train students to conduct osteological analyses and frame bioarchaeological research questions. The collection that we will study is housed at the “Haaz Rezso” Museum in Odorheiu Secuiesc (known as Székelyudvarhely in Hungarian), Harghita County, in the heart of Transylvania. Students will receive daily lectures on topics related to human skeletal biology and spend the first two weeks intensively reviewing human osteology. Other lecture topics will include a discussion of sex and age estimation, osteometrics, and an introduction to skeletal and dental pathologies. In addition, some lecture topics will discuss related applied areas of human osteology and various specialties within the discipline such as skeletal trauma analysis and stable isotope analysis.

Upon completion of this workshop:

1. Students will have in-depth knowledge of all bones in the human body, including landmarks, muscle attachments and articulations.
2. Students will understand fundamental concepts related to the human dentition.
3. Students will understand how to obtain basic demographic data from archaeological skeletal populations.
4. Students will understand how systematic data collection facilitates bioarchaeological research.

Nature of Instructional Activities:

Course material will be presented in lectures, discussions and hands-on exercises in the laboratory located in Odorheiu Secuiesc. The workshop will run from approximately 8:30AM – 5:00PM Monday to Friday. Typically, mornings will be reserved for lecture and hands-on instruction while afternoons will be dedicated to study time and skeletal analysis. A lunch break will be scheduled each day, along with breaks in the morning and afternoon. Participants should also expect to spend several hours per day after formal instruction concludes reviewing and studying the material. This is a fast-paced, intensive course but is an ideal environment for learning about human osteology and its relevance to bioarchaeology.

Required Text: *Human Osteology, 3rd Edition* (2011) – Tim White, Michael Black, and Pieter Folkens

- Electronic or hard copies are acceptable.

Required Readings:

All workshop readings will be provided by Dropbox.

STUDENT EVALUATION:

- **Bone Quizzes (20%)**
 - 6 bone quizzes will be administered during the first two weeks of the workshop and will include whole bones and/or fragments. Students will be responsible for learning anatomical features as well as correct siding techniques.
- **Annotated Bibliography (10%)**
 - Students will compile an annotated bibliography of five (5) sources on a topic related to human osteology or bioarchaeology.
- **Laboratory Projects (20%)**
 - Three projects will be assigned that give students practice in taking osteometrics, estimating sex, and estimating age.
- **Research Project (30%)**
 - During the last half of the workshop, students will work in groups to complete a research project developed in consultation with Dr. Bethard. Each group will present their findings on the last day of the workshop.
- **Bioarchaeology Journal Club (10%)**
 - During the last week of the workshop, students will work in small groups to present and discuss published work focused on medieval bioarchaeology.
- **Participation (10%)**
 - Participation is calculated from overall performance in both laboratory and lecture contexts. Students are encouraged to actively contribute to lecture discussions and to demonstrate that they keeping up with the course material.

Grading Scale

A 100-90 B 89-80 C 79-70 D 69-60 F <59

Workshop Conduct:

Human remains represent a non-renewable resource and will be treated with respect and dignity at all times. Students will not bring food and/or drinks into the laboratory space. In addition, workshop participants will not utilize photographs of human remains for social media purposes without consent of the project director. In addition, workshop participants are to engage with each other in a professional and courteous manner at all times. Likewise, the field school environment should be considered a safe space for people of different backgrounds and belief systems.

Standard University Policies

Policies about disability access, religious observances, academic grievances, academic misconduct, academic continuity, food insecurity, and sexual harassment are governed by a central set of policies that apply to all classes at USF. These may be accessed at: <https://www.usf.edu/provost/faculty/core-syllabus-policy-statements.aspx>

Workshop Schedule

Week 1

Date	Lecture	Readings	Assignment and/or Assessment
9 June	Welcome and Orientation Pelvic Girdle	White et al. (2012): Chapter 11	Pre-Test
10 June	Introduction to Skeletal Biology Skull I: frontal, parietal, occipital, temporal, ear ossicles, sphenoid	White et al. (2012): Chapters 1 - 3 White et al. (2012): Chapter 4	
11 June	Skull II: maxilla, mandible, palatine, zygomatics, ethmoid, nasal, lacrimal, vomer, inferior nasal concha, hyoid, ossified neck structures	White et al. (2012): Chapters 6-7	
12 June	Axial Skeleton	White et al. (2012): Chapters 6-7	Bone Quiz 1
13 June	Shoulder Girdle and Upper Limb Lower Limb	White et al. (2012): Chapters 8-9 White et al. (2012): Chapter 12	Bone Quiz 2

Week 2

Date	Lecture	Readings	Assignment and/or Assessment
16 June	Hand and Foot	White et al. (2012): Chapter 10 & 13	
17 June	Osteometrics and Non-metric Traits	Howells Appendix B Adams and Byrd (2002) Waxenbaum et al. (2010)	Lab Project #1
18 June	Human Odontology and Dentition	White et al. (2012): Chapter 5 Prince-Zinni and Crowley (2013) Prince and Ubelaker (2002)	
19 June	Sex Estimation	Phenice (1969) Walker (2008) Spradley and Jantz (2011) Klares et al. (2012)	Bone Quiz 3 Lab Project #2
20 June	Age Estimation	Algee-Hewitt (2013) Shirley et al. (2013)	Bone Quiz 4 Lab Project #3

Week 3

Date	Lecture	Readings	Assignment and/or Assessment
23 June	Taphonomy	Marden et al. (2013)	
24 June	Paleopathology	Ortner (2011) Smith (2013) DeWitte and Stojanowski (2015)	
25 June	Skeletal Trauma Analysis	Osterholtz (2012) Kroman and Symes (2013) Berryman et al. (2013)	
26 June	Bone Healing and Interpretation	Cunha and Pinheiro (2009) Andrushko and Verano (2008)	Bone Quiz 5
27 June	Isotope Analysis	Bethard (2013) Ambrose et al. (2003) Price et al. (2012)	Bone Quiz 6

Week 4

Date	Lecture	Readings	Assignment and/or Assessment
30 June	Stature Estimation and Secular Change	Willey (2009) Raxter et al. (2006/7)	
1 July	Bioarchaeology of Children	Baxter (2008) Lewis (2012)	Annotated bibliography due
2 July	Bioarchaeology Journal Club #1	Stewart and Vercellotti (2017) Gugora et al. (2018) Pankowská et al. (2019) Miclon et al. (2021) Kinkopf et al. (2023)	
3 July	Bioarchaeology Journal Club #2	Berthon et al. (2019) Trombley et al. (2019) Toso et al. (2021) Kozakaite et al. (2022) Geber et al. (2023)	
4 July	Presentations		Project Due