Course Description:

This course will simultaneously address two goals: developing a detailed understanding of human skeletal anatomy and providing a basic overview of the theory and practice of forensic anthropology. The first half of the semester will have a heavy emphasis on understanding and analyzing biological variation through human skeletal remains. This will include the estimation of age, sex, stature and ancestry which form the basis of forensic identification of remains. The second half of the course will have a greater emphasis on the criminal and legal aspects of forensics. The course will include a regular weekly lab session in order to provide a hands-on opportunity to learn, study and analyze human skeletal material. Weekly online quizzes will be administered to assure proficiency in identifying human skeletal remains. Two of these quizzes will take the form of an in-lab practical quiz, the first one focusing on the head and dentition, the second one focusing on the post-cranial skeleton. A mid-term exam will be administered in class focusing more on the forensic content of the course. Students have an option of completing a take-home final exam or a critical literature review paper on a specific topic of the student’s choice in consultation with Prof. Van Arsdale (choice of paper vs. final exam must be made by Nov. 9th).

Texts:
- Forensic Anthropology, 2008
  Debra A. Kumar & Jane E. Buikstra, Oxford University Press
  Tim D. White & Peter A. Folkens, Academic Press
- Primary literature (.PDFs available via FirstClass)

Course Goals:
- Thoroughly learn the details of human skeletal anatomy, including hands on analysis of skeletal material
- Develop an understanding of how the practice of forensic anthropology is conducted, from identification and analysis of remains, through potential criminal and academic implications of the findings
- Appreciate the complex ethical issues surrounding research with human remains
- Recognize the placement of forensic anthropology within the broader field of anthropology
Grading:

- 20% Weekly Quizzes (10)
  - No quizzes weeks 1, 7, 8, 14
- 10% Practical quizzes (2), in lab (10/28 and 12/9)
- 20% Mid-term exam, in class (10/23)
- 20% Final exam **OR** Final Paper (critical literature review topic)
  - Must choose which option by 11/7, due 12/18 5pm
- 20% Lab/course assignments (6)
  - short, osteology focused practical assignments
- 10% Participation (in class, lab, and on First Class)

First Class:

The First Class site for this course will serve as the primary means of out-of-class communication as well as a storage location for course resources. An introduction to the site and its resources can be found on the main page of the conference.

Concerns:

If you have any concerns regarding your ability to complete the assignments of the course or trouble understanding specific concepts, I am always available for consultation. In addition to my office hours I can be reached with regularity via e-mail (please only call my cell phone in case of emergency). Assistance is also available for students through the Pforzheimer Learning and Teaching Center. All work in this class is subject to the Wellesley Honor Code. While students are encouraged to discuss the course materials and assignments both in and out of class, all of your work must reflect your own independent efforts. All assignments must be turned in on time. Unless approval is granted from Prof. Van Arsdale, no late assignments will be accepted. No extra credit will be available for this course. Much of the material for this class is cumulative in nature – **please contact me early if you feel yourself falling behind!**

SYLLABUS (subject to change)

**Week 1: (Sept. 7-11) Introduction/What is Forensic Anthropology?**

Tuesday, September 8 – First day of class, Introduction to Forensic Anthropology and Ethics
Friday, September 11 – Biological variation and bone biology (part I)

Readings:

- Ch. 1 K&B (1-22)
- Ch. 1 W&F (1-6)

**Week 2: (Sept. 14-18): Bones and Biological Variation**

Tuesday, September 15 – Bone biology (part II)
Friday, September 18 – Film, Anastasia: Dead or Alive? (in class)
No lab session!

Readings:

- Ch. 5 K&B (115-153)
- Ch. 4 W&F (31-48)
**Week 2 (continued)**
Bones: Anatomical Terminology/ Cranium

*General bone terminology, Frontal, Parietals (Ch. 6, Ch. 7.1-7.6)*

**First Osteology quiz (skeletal terminology), to be completed online by Friday 5pm**
**Measurement assignment, due Friday 9/25**

**Week 3 (Sept. 21-25): Estimating Age**
Tuesday, September 22 – Statistics and biological variation
*Wednesday, September 23 – First Lab Session, Introduction to bones, bones of the skull*
Friday, September 25 – Developing a forensic profile, part I: estimating age

Readings:
• Ch. 19.1-19.3 W&F (359-385)

Bones: Cranium

*Temporals, Occipital, Sphenoid, Auditory Ossicles (7.8-7.10, 7.19)*

**Osteology quiz, to be completed online by Friday 5pm**

**Week 4 (Sept. 28-Oct. 2): Estimating Sex and Stature**
Tuesday, September 29 – Developing a forensic profile, part II: estimating sex and stature
*Wednesday, September 30 – Lab Session, Estimations of sex and age from cranial remains*
Friday, October 2 – Case studies, group investigations

Readings:
• Ch. 19.4-19.5 W&F (385-400)

Bones: Cranium

*Maxillae, Palatines, Lacrimals, Nasals, Ethmoid, Vomer, Nasal Conchae (Ch. 7.11-7.18)*

**Osteology quiz, to be completed online by Friday 5pm**
**Age and sex lab assignment, due Tuesday 10/6**

**Week 5 (Oct. 5-9): Pathology and Trauma**
Tuesday, October 6 – Developing a forensic profile, part III: pathology and trauma
*Wednesday, October 7 – Lab Session, review cranial bones, makeup age/sex assignment*
Friday, October 9 – Trauma, physics, and the body

Readings:
• Ch. 6 K&B (154-188)
• Ch. 17 W&F (309-332)

Bones: Mandible, cranium review

*Mandible (Ch. 7.20)*

**Osteology quiz, to be completed online by Friday 5pm**
Week 6 (Oct. 12-16): Taphonomy & Crime Scene Investigation (part I)
Tuesday, October 13 – Dental anthropology
Wednesday, October 14 – Lab Session, crime scene investigation* (meet by boathouse)
Friday, October 16 – Taphonomy

Readings:
• Ch. 7 K&B (189-207), Ch. 4 K&B (90-107)
• Ch. 2 W&F (7-20)

Bones: Teeth
Incisors, Canines, Premolars (Ch. 8)
Molars, Deciduous teeth (Ch. 8)

**Osteology quiz, to be completed online by Friday 5pm**
**Crime scene report, due Tuesday 10/20**

Week 7 (Oct. 19-23): Developing a profile, review
Tuesday, October 20 – Osteology and Forensic Profile Review w/case studies
Wednesday, October 21 – No Lab Session, Fall Break Schedule
Friday, October 23 – Mid-term, in class

No Readings
No Quiz

Week 8 (Oct. 26-30): Personal Identification, Part I
Tuesday, October 27 – Developing a forensic match, part I
Wednesday, October 28 – Lab Practical #1 (skull + teeth)
Friday, October 30 – The ethics and usage of identity (debate)

Readings:
• Ch. 8 K&B (208-238)
• Ch. 19.6-19.9 W&F (400-411)

Bones: Upper Postcranial Skeleton
Hyoid, Vertebrae, Sternum, Ribs (Ch. 9-10)

Week 9 (Nov. 2-6): Personal Identification, Part II
Tuesday, November 3 – Developing a forensic match, part II
Wednesday, November 4 – Bones of the thorax
Friday, November 6 – What does race mean in forensics?

Readings:

Bones: Upper Postcranial Skeleton
Clavicle, Scapula, Humerus, Radius, Ulna (Ch. 11-12)

**Osteology quiz, to be completed online by Friday 5pm**
**Axial skeleton lab assignment, due Tuesday 11/10**
**Week 10 (Nov. 9-13): The Medico-Legal System**
Tuesday, November 10 – Introduction to the medico-legal system  
*Wednesday, November 11 – Bones of the upper limb*  
Friday, November 13 – Interaction between scientific and legal spheres

Readings:
- Ch. 2 K&B (23-43)  
- Ch. 3 W&F (21-30)

Bones: Pelvis  
*Sacrum, Coccyx, Os Coxa* (Ch. 14)

**Osteology quiz, to be completed online by Friday 5pm**  
**Final decision on Final Paper/Final Exam must be made by Friday, 11/7**

**Week 11 (Nov. 16-20): Evidence & The Judicial System**
Tuesday, November 17 – Developing a forensic match, part I  
*Wednesday, November 18 – Sexing and aging the pelvis*  
Friday, November 20 – The “expert” witness

Readings:
- Ch. 3 K&B (44-64)

Bones: Lower Limb  
*Femora, Patellae, Tibiae, Fibulae* (Ch. 15)

**Osteology quiz, to be completed online by Friday 5pm**  
**Pelvis age and sex assignment, turned in (hard-copy) by Friday 5pm**

**Week 12 (Nov. 23-27): Crime Scene Investigation (part II)**
Tuesday, November 24 – Developing a forensic match, part II  
*Wednesday, November 25 – Lab makeup session (contact Prof. Van Arsdale)*  
Friday, November 27 – NO CLASS, THANKSGIVING HOLIDAY

Readings:
- Ch. 4 K&B (65-114)

Bones: Hands  
*Carpals, Metacarpals, Phalanges* (Ch. 13)

**Osteology quiz, to be completed online by Friday 5pm**

**Week 13 (Nov. 30-Dec. 4): Mass Death and Human Rights**
Tuesday, November 30 – Developing a forensic match, part I  
*Wednesday, December 1 – Bones of the lower limb*  
Friday, December 3 – Film, Discovering Dominga (in class)

Readings:
- Ch. 9 K&B (239-257)  
- Juhl & Olsen (2006), “Societal safety, archaeology and the investigation of contemporary mass graves”.  
  Scientific American, 3/23/09
**Week 13 (continued)**
Bones: Feet  
*Tarsals, Metatarsals, Phalanges (Ch. 16)*

**Osteology quiz, to be completed online by Friday 5pm**  
**Upper and lower limb assignment, due Tuesday 12/8**

**Week 14 (Dec. 7-11): Biohistories**  
Tuesday, December 8 – Biohistorical reconstruction  
*Wednesday, December 9 – Lab Practical #2*  
Friday, December 11 – Public forensics, final class

Readings:  
- Ch. 10 K&B (258-281)  
- Ch. 19.10-19.11 W&F (411-418)

**Final Exam or Final Paper, due by 12/18, 5pm**