

ANT 3522 Section 4893 - Skeleton Keys: Introduction to Forensic Anthropology

Instructor: Maranda A. Kles, M.A., M.S.

Class Time and Room: Monday 4:05-6:00
Wednesday 5:10-6:00
Turlington L005

Office Hours: Tuesday 9:00-11:00
Wednesday 3:00-5:00
Contact for additional times.
Turlington B342

Course Objectives: This course provides a broad overview of forensic anthropology – an applied field of biological anthropology. Forensic anthropology focuses the wider scope of skeletal biology on problems of medicolegal significance, primarily in determining personal identity and cause of death from human remains. While I will not be teaching proficiency in forensic techniques in this class, we will discuss the full range of problems associated with human skeletal identification and trauma analysis. These problems will serve as a model for understanding the broader aspects of applied anthropology.

Required Textbook: Warren MW and Parr NL. Bare Bones: A Survey of Forensic Anthropology. Kendall-Hunt Publishing. ISBN: 978-0-7575-447-7

Grading policy: There will be 3 exams (100pts each). Attendance and classroom contribution will be heavily considered. The exams are constructed so that attendance is rewarded. Final grades will be:

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| A | 270-300 |
| B+ | 260-269 |
| B | 250-259 |
| B- | 240-249 |
| C+ | 230-239 |
| C | 220-229 |
| C- | 210-219 |
| D+ | 200-209 |
| D | 190-199 |
| D- | 180-189 |
| E | <180 |

Students are responsible for all of the information provided in the textbook. Make-up exams for excused absences will be administered on the last day of classes. Any students caught cheating will be receive an "E" for the course.

Students with letters from the Disability Resource Center should contact Mrs. Kles at their earliest convenience. We will employ a note-taker to record the lectures and outlines may be distributed to students requiring accommodations.

Course Outline: General topics and reading assignments. Subject matter is subject to change at the discretion of the professor depending on current events and student interests.

Week 1: **Introduction and Ground Rules:** Announcement of course number, meeting times and location; Format, evaluations, text and grades; Instructor's background and interests; Student backgrounds; Review of the syllabus; Discussion of the somber subject matter and need for a professional demeanor.

Medicolegal Aspects of Death: The circumstances of human death - unattended death and/or suspicious circumstances; the origin of skeletal cases; Cause and manner of death; when is a forensic anthropologist needed? (Chapter 1)

The Medical Examiner and Coroner systems; the relationship between the pathologist and the anthropologist - the ME office or the field; Death investigations; Handling of evidence; the law and retention of anatomical specimens for evidence; bio-photography and documentation of evidence. (Chapter 1)

Week 2: **What is Forensic Anthropology?** Brief history of Physical and Forensic Anthropology; Osteology, human variation and life history theory; Applied Anthropology. (Chapter 2)

Consulting and Collaboration – The team approach. Why an anthropologist instead of a pathologist? I present a case history.

Field Recovery of Human Remains: Mapping the site; Ground penetrating radar and other geophysical techniques for discovering clandestine graves (Chapter 3).

Week 3: **No Class- September 7th**

Processing Remains into Evidence: Documentation and processing; maceration (Chapter 3).

Week 4: **Postmortem damage and taphonomy:** Taphonomy and time since death - from the biosphere to the lithosphere; Carnivore and scavenger damage; Forensic Entomology; Ritual use of human skeletal material - The Santeria and Frat House Pranks (Chapter 4).

Osteology and Osteometry: Skeletal anatomy, osteometry and the tools of skeletal analysis (Chapter 5).

Skeletal Analysis: statistics and reference populations (Chapter 5).

Exam I- September 16th

Week 5: **Group Characteristics I - Determination of biological sex:** The skeletal biology of birth (Chapter 6).

Personal case stories

Week 6: **Group Characteristics II – Age at death:** Growth and development, and maturation and degeneration; determination of age at death in juveniles; the correlation between stature and age in fetuses and children; (Chapter 8).

Group Characteristics II – Age at death: Age-related pathology and metamorphic changes in bone (Chapter 8).

Group Characteristics III – Forensic Stature: Determining stature from bones; Anatomical stature vs. recorded stature (Chapter 9).

Week 7: **Group Characteristics IV: Race - fact or fiction?** Clinal variation and population affinities (Chapter 7).

FORDISC example

Personal case stories

Week 8: **Individual Characteristics and Personal Identification:** Antemortem data - medical records and family histories; Frontal sinuses, 12th ribs and other unique biological markers; old fractures and medical hardware; Forensic Odontology; comparison of antemortem and postmortem radiographs (Chapter 10).

Week 9: **Forensic Art:** Two and three-dimensional facial approximation; computer-enhanced forensic art (Chapter 11).

Review

Exam II- October 21

Week 10: **Trauma and Cause of Death:** Antemortem and perimortem trauma – definitions; mechanisms of injury (Chapter 12).

Trauma and Cause of Death: Ballistic trauma (Chapter 12).

Trauma and Cause of Death: Blunt trauma and patterned injuries; sharpforce trauma (Chapter 12).

Week 11: **Burned Bodies and Cremation:** Can a body be destroyed by fire? The process of commercial cremation; mortuary, dental and medical artifacts in personal identification; the anthropometry of cremation (Chapter 13).

Bone Toxicology

Week 12: **The Profession of Forensic Anthropology:** Education, career paths, and organizations (Chapter 16).

Professionalism and Ethics

The Job Hunt

No Class- November 11th

Week 13: **Mass Fatalities:** Disaster Mortuary Teams and jurisdiction; Techniques in identification; Theoretical approach to a new problem: passenger lists and missing persons (Chapter 14).

Mass Fatality Case Histories: ValuJet Flight 592, the World Trade Center and Hurricane Katrina (Chapter 14).

Week 14: **Lab Tours (?)**

Maples Video

Happy Thanksgiving!

Week 15: **Human Rights Missions:** Documenting human rights abuses; Working with non-governmental organizations; Case history - Atrocities in Bosnia and Kosovo (Chapter 15).

Missing in Action - Military Identifications: The U.S. Army Central Identification Laboratory - Hawaii; The POW/MIA issue; Fieldwork in Indochina - ancient villages and scrap metal; The nature of forensic identification in high-speed jet crashes; The importance of studies based on military repatriation data.

Review

Week 16: **Exam 3- December 9th**

All make-up exams for excused absences will be administered during finals week.