

ANTH 0010 - INTRODUCTION TO FORENSIC ANTHROPOLOGY

Catalog Description

Hours: 54 lecture

Description: Overview of forensic anthropology, an applied field of physical anthropology. Emphasis on current techniques used in the analysis of human skeletal remains, medico-legal procedures, and the role of the anthropologist in the investigative process. Examines the basics of bone biology, methods of skeletal analysis, and recognition of bone trauma and pathological processes. (CSU, UC)

Course Student Learning Outcomes

- CSLO #1: Compare and contrast cultural, archaeology, linguistic and biological anthropology.
- CSLO #2: Describe the scientific method and theories used by anthropologists within a forensic context.
- CSLO #3: Articulate the legal and ethical responsibilities involved with working with human remains in various forensic contexts.
- CSLO #4: Explain in detail variation in human skeletal remains over time due to various biological and behavioral influences.
- CSLO #5: Evaluate large-scale applications of forensic anthropology.

Effective Term

Fall 2022

Course Type

Credit - Degree-applicable

Contact Hours

54

Outside of Class Hours

108

Total Student Learning Hours

162

Course Objectives

1. Assess the history, methods and approaches of forensic anthropology and explain the role of the anthropologist in a criminal or crime scene investigation.
2. Analyze the legal and ethical issues of working with human remains.
3. Discriminate between human and nonhuman remains and contemporary and non-contemporary burial situations.
4. Identify postmortem and taphonomic changes to human remains.
5. Apply anthroposcopic and osteometric techniques for determining sex, age, ancestry, stature, and handedness from human skeletal remains.
6. Interpret trauma and pathological processes in human skeletal remains.
7. Apply techniques for establishing positive identification using human skeletal remains.

8. Describe field techniques to locate human remains and conduct a forensic excavation.
9. Evaluate large-scale applications of forensic anthropology to disasters, human rights and POW/MIA recovery.

General Education Information

- Approved College Associate Degree GE Applicability
 - AA/AS - Life Sciences
- CSU GE Applicability (Recommended-requires CSU approval)
 - CSUGE - B2 Life Science
- Cal-GETC Applicability (Recommended - Requires External Approval)
- IGETC Applicability (Recommended-requires CSU/UC approval)
 - IGETC - 5B Biological Science

Articulation Information

- CSU Transferable
- UC Transferable

Methods of Evaluation

- Classroom Discussions
 - Example: Assigned reading of the text, case studies, images and in-class discussion will provide information related to determining discriminating between ballistic, sharp and blunt trauma. Given a set of human remains, students will work collaboratively to make inferences about the possible cause, manner and mechanism of death of an individual with specific reference to the type of trauma. Once they have established the qualities, each group will present their ideas to the class where all will either agree (if they have arrived at the same assessment) or disagree with specific reference as to the points of contention. Rubric grading.
- Essay Examinations
 - Example: Using information from the Burns manual, class discussion and any other information you learned from your case readings, describe: (A) How might an individual find a clandestine burial? (What surface features to look for; what are effective techniques to use to initially locate the burial?) and (B) What are the equipment and supplies and/or methods used to actually excavate it? Rubric grading.
- Objective Examinations
 - Example: True or False: Typically, when a criminal hides the body of his/her victim, they go to an unknown place so that, when questioned, they will be unable to provide a precise location for the burial. Please explain why this is either true or false.
- Problem Solving Examinations
 - Example: Assigned reading of the text, case studies, images and in-class discussion will provide information related to estimating the sex of a set of human remains. Using human skeletal materials, students will work collaboratively in small groups to determine the sex of an unknown individual using as many elements as possible. The groups will present their conclusions to the class.
- Projects
 - Example: The capstone project for the course is for each group to be given (by way of random assignment) a box of bones belonging to a single individual. They will fill out a case report with reference to all of the case study elements (bone and dental inventory, sex, age, ancestry, handedness, stature, pathological processes, trauma, and methods of identification). After analyzing

the materials within a single class period, they will submit their final assessment to the instructor. Rubric grading.

- Reports
 - Example: The capstone project for the course is for each group to be given (by way of random assignment) a box of bones belonging to a single individual. They will fill out a case report with reference to all of the case study elements (bone and dental inventory, sex, age, ancestry, handedness, stature, pathological processes, trauma, and methods of identification). After analyzing the materials within a single class period, they will submit their final assessment to the instructor. Rubric grading.

Repeatable

No

Methods of Instruction

- Lecture/Discussion
- Distance Learning

Lecture:

1. During the subadult age-estimation section, the teacher will assign relevant case study readings to prepare students before class. During the class meeting s/he will explain the application of bone fusion and dental eruption using images and skeletal samples. Students will be asked to discuss the relevancy of each technique to a set of human remains, and to collaborate to estimate the likely ages of the individuals in the images/samples presented. After clarifying any questions, the teacher will distribute sets of human remains for each group and facilitate their work at establishing each individual's age at death. Activity: During the trauma interpretation section, the teacher will assign relevant case study readings to prepare students before class. During the class meeting s/he will explain information related to discriminating between ballistic, sharp and blunt trauma using skeletal elements and images. Students will be asked to make a list of wound characteristics in bone and collaborate to determine the wound types presented by the teacher. After answering any questions, students will visit stations with sets of human remains and work collaboratively to make inferences about the possible cause and manner of death of an individual with specific reference to the type of trauma.

Distance Learning

1. During the sex estimation section, the teacher will provide a lecture presentation with content, images, video clips and audio voice-over. This will help students prepare for the in-class meeting related to the same topic. Distance Learning (online): During the identification section, the teacher will assign the podcast "Bear Brook." Students will be asked to note various contemporary techniques to establish tentative, presumptive and positive identification of the victims in this case. Through asynchronous Zoom meetings, discussion board, and written assignments, students will not only explain the techniques, but find current cold cases in which the same techniques could be applied, and which levels of identification could be established in each.

Typical Out of Class Assignments Reading Assignments

1. Read "An Incidental Finding" from the Case Studies textbook and be prepared to discuss why the author uses the phrase "above all do no harm" in reference to the recovery of the child's skeletal remains.
2. Read and review Dawnie Wolf Steadman's "The Marty Miller Case" and be prepared to discuss the methods used in determining his cause of death and personal identification.

Writing, Problem Solving or Performance

1. Explain techniques to determine the age, sex, ancestry, individual features, and ante, peri and postmortem trauma on a set of human remains.
2. Strategize and create a plan for conducting fieldwork in areas of mass disasters. Use specific references to case studies from recent mass disasters.

Other (Term projects, research papers, portfolios, etc.)

Students may research a relevant topic of their choice throughout the semester, culminating in an annotated bibliography. Possible topics include photographic superimposition, interpretation of trauma, estimating time since death, and mass disasters.

Required Materials

- Introduction to Forensic Anthropology
 - Author: Steven N. Byers
 - Publisher: Allyn and Bacon
 - Publication Date: 2017
 - Text Edition: 5th
 - Classic Textbook?: No
 - OER Link:
 - OER:
- Forensic Anthropology Training Manual
 - Author: Karen Ramey Burns
 - Publisher: Prentice Hall
 - Publication Date: 2012
 - Text Edition: 3rd
 - Classic Textbook?: No
 - OER Link:
 - OER:
- Hard Evidence: Case Studies in Forensic Anthropology
 - Author: Dawnie Wolfe Steadman
 - Publisher: Prentice Hall
 - Publication Date: 2009
 - Text Edition: 2nd
 - Classic Textbook?: No
 - OER Link:
 - OER:
- Forensic Anthropology: A Comprehensive Introduction
 - Author: Myriam Nafte
 - Publisher: CRC Press
 - Publication Date: 2017
 - Text Edition: 2nd
 - Classic Textbook?: No

- OER Link:
- OER:

Other materials and-or supplies required of students that contribute to the cost of the course.