

# **ANTHROPOLOGY 330: FORENSIC ANTHROPOLOGY (3 CREDITS)**

**FALL 2016**

**INSTRUCTOR:** Dr. Britney Kyle

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**PHONE:** 970-351-1745

**OFFICE:** Candelaria 2056

**OFFICE HOURS:** TR 12:30-3pm and by appointment

**CLASS TIME AND LOCATION:** TR 11:30am-12:15pm, Candelaria 1190

**TA:** Tessa Smith, [smit5415@bears.unco.edu](mailto:smit5415@bears.unco.edu)

## **REQUIRED TEXTS:**

- Burns, Karen Ramey. 2013. *Forensic Anthropology Training Manual 3<sup>rd</sup> Edition* Pearson Publishers. ISBN: 978-0-205-02259-5
- Maples, William R. 1995. *Dead Men Do Tell Tales: The Strange and Fascinating Cases of a Forensic Anthropologist*. Broadway Publishers. ISBN: 978-0-385-47968-4.
- White TD., Folkens PA. 2005. *The human bone manual*. San Diego: Elsevier Academic Press. ISBN 13: 978-0-12-088467-4

## **COURSE DESCRIPTION:**

This course focuses on identification and interpretations of human skeletal remains from legal contexts. Forensic anthropologists apply osteological techniques to make personal identifications and to identify cause and manner of death. Topics to be covered in this class include: human skeletal and dental anatomy, skeletal growth and development, and applications of these techniques to legal contexts. We will learn to create a biological profile by identifying age, sex, stature, and ancestry in skeletal individuals, and identify trauma patterns as they relate to personal identification, cause, and manner of death. We will also discuss excavation techniques, estimating postmortem interval, and taphonomic changes to a body.

Much of this course is laboratory-based. In order to learn the bones of the human body, you must spend a lot of time looking at 3-dimensional bones. It is not possible to truly understand human skeletal variation by looking at images in a book. We will spend much of our class time looking at bones and identifying fragments. However, you may need additional time with the bones to reinforce these concepts. Thus, open lab will be held every Tuesday and Thursday from 9:30-11am. Attendance at these bone labs is not mandatory, but is recommended to effectively learn human osteology.

## **COURSE LEARNING OBJECTIVES:**

- (1) Students will be able to identify the bones and specific features of various skeletal elements of the adult and subadult human skeleton in class, and on exams and quizzes.
- (2) Students will analyze individual skeletons to determine sex, age, stature, and ancestry from bones in a laboratory setting.
- (3) Students will demonstrate how osteological techniques are used to create a biological profile and to identify cause and manner of death in assignments.
- (4) Students will be able to apply forensic field methods in a mock excavation.

## **DEPARTMENTAL LEARNING OUTCOMES:**

- (1) Students will apply methods commonly used by physical anthropologists, e.g., osteological and forensic methods and techniques, in the creation of a biological profile.
- (2) Student will critically evaluate osteological evidence to identify age, sex, ancestry, and stature in human remains.

## **INSTRUCTOR-STUDENT COMMUNICATION:**

Students should not hesitate to contact the instructor with any questions, comments, or concerns. The instructor may be reached at the email address and office above. If the instructor's office hours conflict with your schedule then you should contact the instructor to schedule a special appointment.

## **CLASS NEWS AND CANCELLATION:**

In case of unexpected instructor absences, the information will be posted on the **Blackboard website**. This site should be consulted in the event of inclement weather to check for possible class cancellations or delays. Changes or cancellation of office hours will also be posted on Blackboard.

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### STUDENTS WITH DISABILITIES:

Any student requesting disability accommodation for this class must inform the instructor by giving appropriate notice. Students are encouraged to contact Disability Support Services at (970) 351-2289 to certify documentation of disability and to ensure appropriate accommodations are implemented in a timely manner.

### ACADEMIC MISCONDUCT:

All members of the University of Northern Colorado community are entrusted with the responsibility to uphold and promote five fundamental values: Honesty, Trust, Respect, Fairness, and Responsibility. These core elements foster an atmosphere, inside and outside of the classroom, which serves as a foundation and guides the UNC community's academic, professional, and personal growth. Endorsement of these core elements by students, faculty, administration, and trustees strengthens the integrity and value of our academic climate.

Cheating, plagiarism, forgery, and all other forms of academic misconduct are unacceptable in this course, and at UNC. UNC's policies and recommendations for academic misconduct will be followed. For additional information, please see the Dean of Student's website, Student Handbook link <http://www.unco.edu/dos/handbook/index.html>. Lack of knowledge of these requirements will not be viewed as an excuse for noncompliance. Cheating, plagiarism, and forgery will result in a zero for that assignment and may result in a failing grade for the course.

### COURSE REQUIREMENTS:

**Attendance and Participation:** Attending class is ESSENTIAL for learning this material so **attendance is mandatory**. Absences and tardiness will be detrimental to your final grade. If you miss a class, you are responsible for the material covered; the **instructor will not provide lecture notes** for missed classes. Four or more unexcused absences will lead to a FAILING GRADE. (Note: this policy does not cover bone labs, which are *entirely voluntary*).

One of the best ways to retain thoughts and information is by articulating them; therefore participation is required to attain the full credit for this portion of your grade. Please remain on topic when asking/answering questions. We will do several in-class activities. Your participation in these activities is required to receive participation points. All readings will be discussed in class and tested on in quizzes.

**Quizzes:** To learn and remember the material in this class requires memorization and constant practice. This can only be accomplished with on-going testing. Five quizzes will occur throughout the semester and cover material presented since the last quiz. **The quizzes may include two parts:** (a) a lab portion of bone identification, feature identification, and siding; and (b) a written portion, including multiple-choice, fill-in-the-blanks, matching, and/or short answer. The lab portion will be a timed-station format - you will have a *set time per station* to make your assessment. **Material from readings will be included on quizzes.**

**Osteology Exam:** There is one exam in this course. It will be entirely lab based and will require you to identify bones and bone fragments, and identify age, sex, and ancestry of skeletal remains. The exam will be a timed-station format - you will have a *set time per station* to make your assessment. This exam is comprehensive.

**Mock Excavation:** Two days of mock excavation will take place during the week of October 10-16. You are required to participate in one of these days of mock excavation. Each day of excavation will last approximately 3-4 hours. You will use the material from these excavations in your group lab report and in the mock trial at the end of the course. More information about the mock excavation will be given in the upcoming weeks.

**Group Lab Report:** Each group will compile a lab report about the skeleton they excavate in the mock excavation. Groups will be assigned during the mock excavation. Each student will choose one section of the report to write, e.g. age-at-death, sex, ancestry, stature, pathology, etc. Each section should be

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approximately **4-5 pages, double-spaced** and include **terminology learned throughout the course**. Individuals sections will be compiled into a single document and an introduction paragraph and summary paragraph should be added by the group. **Each group member's name** should appear at the top of the document **AND** at the top of the section that he or she wrote. All reports should be typed, Times New Roman, 12 point font, with one inch margins. A rubric with grading criteria for reports will be posted at least three weeks prior to the due date.

**Mock Trial:** Each student will participate in a mock trial during the last week of the course. In this trial, students are expected to act as expert witnesses and defend the portion of the identification they write for the lab report. Students are expected to know whether the material they present conforms to the **Daubert Standard**, including error rates for each technique. Students are expected to answer questions and defend their position for approximately five minutes each. Additional information will be provided about the mock trial towards the end of the semester.

### GRADING SUMMARY

Assignment	% of Final Grade
Attendance and participation	5
Quizzes (5% each)	25
Osteology Exam	25
Mock Excavation	10
Group Lab Report	25
Mock Trial	10
<b>TOTAL</b>	<b>100</b>

### GRADING SCALE

<u>Percentage</u>	<u>Letter Grade</u>	<u>Quality Points</u>
93-100	A	4.000
90-92	A-	3.667
88-89	B+	3.334
83-87	B	3.000
80-82	B-	2.667
78-79	C+	2.334
73-77	C	2.000
70-72	C-	1.667
68-69	D+	1.334
63-67	D	1.000
60-62	D-	0.667
0-59	F	0.000

### GRADING PROCEDURES:

Late assignments will be **docked by 10% for every calendar day** that they are late, ie. one day, 10%, two days 20%. **No extra credit will be offered**. Make-up exams and quizzes will be given at the instructor's discretion. If a test or quiz is missed due to unforeseen circumstances such as illness or family emergency, arrangements will be made so no penalty is imposed, but **only if the legitimacy of the absence is adequately documented** (doctor's excuse, accident report, etc.) **AND the instructor is contacted within 24 hours of the examination date**. All make-up exams/quizzes must be taken within one week after the exam/quiz. Otherwise, the student will receive a "0" for that portion of their grade. Anyone arriving late to an examination (after the first person has finished) is required to produce adequate documentation explaining their tardiness before admittance will be granted. **Those arriving late to class will not be allotted extra time to complete quizzes or exams** (i.e. don't be late to class). Refer to the course outline for the dates of the exams and quizzes. **If you have any conflicts with the exam dates, see the instructor immediately.**

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The following is a schedule of the major topics that will be covered in this class. It should be considered tentative and may be modified during the course of the semester as determined by factors such as student progress and amount of class discussion.

Week	Day	Topics Covered	Readings
1	<b>T 8/23</b>	Course mechanics / What is Forensic Anthropology? / History of Forensic Anthropology	Ch. 1
	<b>R 8/25</b>	The Biological Profile / Bone Biology	Ch. 2
2	<b>T 8/30</b>	Intro to Osteology / Anatomical Terminology	Burns, 2009
	<b>R 9/1</b>	The Skull	Ch. 3
3	<b>T 9/6</b>	The Skull / Age and Sex Determination from the Skull	
	<b>R 9/8</b>	Overview of Forensic Sciences	Ch. 12
4	<b>T 9/13</b>	Shoulder Girdle and Thorax <b>Quiz 1</b>	Ch. 4
	<b>R 9/15</b>	Age Estimation in Juveniles	p. 189-202
5	<b>T 9/20</b>	The Vertebral Column / Disease and Pathology	Ch. 5, p. 211-214
	<b>R 9/22</b>	The Arm <b>Quiz 2</b>	Ch. 6
6	<b>T 9/27</b>	The Pelvic Girdle	Ch. 8
	<b>R 9/29</b>	Age and Sex Determination from the Pelvis / Discussion of Dead Men Do Tell Tales	Dead Men Do Tell Tales Due
7	<b>T 10/4</b>	The Leg / Stature Calculation Exercise	Ch. 9
	<b>R 10/6</b>	Hands and Feet <b>Quiz 3</b>	Chs. 7 & 10
8	<b>T 10/11</b>	Field Methods / Estimating Postmortem Interval	Ch. 15 Sauer et al., 2009
	<b>R 10/13</b>	Taphonomy and Postmortem Changes to Bone	Marks, et al., 2009a
9	<b>T 10/18</b>	Discussion of the Excavation / Analysis of the Excavated Remains - Inventory	Steadman & Konigsberg, 2009
	<b>R 10/20</b>	Teeth / Bitemark Evidence / Forensic Dentistry	Ch. 11
10	<b>T 10/25</b>	Estimating Ancestry - Does biological race exist?	Ch. 14 Sauer, 1992
	<b>R 10/27</b>	Analysis of the Excavated Remains - Age and Sex Estimation <b>Quiz 4</b>	
11	<b>T 11/1</b>	Laboratory Methods for Estimating Ancestry / Analysis of the Excavated Remains - Ancestry	
	<b>R 11/3</b>	Quality Check for Skeletal Analysis / Is it human?	p. 215; Ubelaker- Ch. 6
12	<b>T 11/8</b>	<b>Osteology Exam</b>	
	<b>R 11/10</b>	Trauma / Types of Trauma Activity / Analysis of the Excavated Remains – Trauma	p. 202-210; Marks et al., 2009b; Ubelaker, - Ch. 3
13	<b>T 11/15</b>	Personal Identification	p. 216-221
	<b>R 11/17</b>	Forensic Anthropology Ethics / Expert Witness Testimony	Ch. 16
14	<b>T 11/22</b>	Large-Scale Applications <b>Quiz 5</b>	Ch. 17; Mann et al., 2009
	<b>R 11/24</b>	No Class - Happy Thanksgiving!	
15	<b>T 11/29</b>	Mock Trial – Student Expert Witness Testimony	
	<b>R 12/1</b>	Mock Trial – Student Expert Witness Testimony	
16	<b>F 12/9</b>	<b>Group Lab Report Due by 1:15pm</b>	

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**DON'T FORGET BONE PRACTICE!!**  
**EVERY TUESDAY AND THURSDAY FROM 9:30-**  
**11AM**  
**1190 CANDELARIA HALL**

**RESOURCES:**

**WEBSITES:**

[www.getbodysmart.com](http://www.getbodysmart.com)

[http://headneckbrainspine.com/web\\_flash/newmodules/skull%20base%20CT.swf](http://headneckbrainspine.com/web_flash/newmodules/skull%20base%20CT.swf)

**THE WRITING CENTER:**

The UNCO Writing Center is located in 1230 Ross Hall. Please consult them for help with writing style, grammar, understanding of documentation styles, etc. Consultations and tutoring are by appointment only. Call 970-351-2056 or visit their website at <http://www.unco.edu/english/wcenter/>.