Course Description: The discipline of anthropology has shown us that humans are naturally curious about themselves and the world around them. From prehistoric cave art to modern biochemistry, people have sought to describe human anatomy and physiology in a variety of ways. This course specifically covers human osteology, or the study of the human skeleton. The course will teach you about skeletal morphology in both lecture and laboratory settings, and you will master identification of all 206 bones and 52 teeth (permanent and deciduous) in the human body. Students will learn: 1) how to identify skeletal elements, both whole and fragmentary; 2) how to estimate age, sex, ancestry, and stature of an individual; 3) laboratory analysis and imaging techniques; 4) how to reconstruct populations, particularly in terms of diet and disease; and 5) real-world applications of human osteology.

Texts:
*Osteology of Infants and Children* by B. Baker, T. Dupras & M. Tocheri
Additional articles uploaded to OAK

Requirements:

**Quizzes** (40%) – There will be twelve (12) quizzes throughout the semester. Quizzes will always be given on **Tuesday** at the beginning of class (11am sharp). You will have 20 stations at which you will have to identify bone, side, and/or landmark. Quizzes are designed to take about 20 minutes, 1 minute for each station. There will be no make-ups for quizzes, but I will drop your lowest two (2) quiz grades. Each quiz will have an extra credit question.

**Midterm and Final** (30%) – The midterm and final will also consist primarily of identification and/or analysis of bones (side, landmarks, age, sex, pathology). The midterm is worth 15% of your grade and will be given on **October 13**. The final is cumulative and will also include essay questions. It is worth 15% of your grade and will be given on **December 10**.

**Skeletal Report** (20%) – Throughout the semester, you will be working on a full osteological analysis of a human skeleton. In a 7- to 10-page report, you will identify the bones present and report on the skeleton’s age, sex, stature, and pathological conditions. This project is due on or before **November 29**, and more information will be forthcoming.

**Lab Notebook** (10%) – You will also receive a lab assignment almost every Tuesday, for a total of eleven (11) labs. Labs will be checked during the quiz the following **Tuesday**, and the lowest assignment will be dropped. These labs are designed to help you learn course material in a hands-on environment. You may work with a partner to complete the lab, but you will turn in assignments individually. I suggest purchasing a 3-ring binder to keep assignments organized.
**Attendance Policy:**
In addition to the above, your attendance at lecture is mandatory. You are required to attend at least one hour of lab each week. You will find during the semester that you need more than one hour of lab in order to study or work on your projects. The lab will be open on Tuesdays and Thursdays before class. Outside of those times, if the lab is locked, ask for a key from Dr. Killgrove, Beth, or Shelley Darling in the anthropology office. More than two unexcused absences from lecture will result in half a letter grade deduction from your final grade for each additional absence. Failure to come to lab at least one hour per week will also result in half a letter grade deduction from your final grade for each additional absence. Please see Dr. Killgrove during office hours to discuss extended absences or other unavoidable attendance issues as far in advance as possible.

**Classroom Behavior:**
This class will sometimes cover controversial topics such as gender, ethnicity, and race. All efforts will be made to present information in a social scientific manner as well as to encourage productive dialogue and discussion. However, I do expect that all students will treat each other, me, and their teaching assistant with respect at all times. No opinions or speech that discriminate against or are derogatory towards others on the basis of race, ethnicity, age, gender, religion, sexual orientation, political affiliation, or disability will be tolerated. Students who express such opinions will be asked to leave the classroom. Laptop use in class is permitted, but students engaging in overt and constant web surfing in lecture or lab will be asked to close their computers, as this distracts the entire class. Students should also refrain from unacceptable behavior such as sleeping, using their cell phones, or talking with classmates at inappropriate times. Such behaviors will also result in the student’s being asked to leave the classroom.

**Lab Behavior:**
It is a great privilege to be able to study the physical remains of the dead. Additionally, medical-grade skeletal remains are expensive and therefore a precious resource. There is to be no roughhousing or otherwise mistreating the skeletal remains. Food is not permitted in the lab; drinks are acceptable if they can be capped. You will receive a full list of laboratory rules in class. Students who fail to abide by lab rules will be asked to leave.

**Academic Dishonesty Policy:**
The Vanderbilt Honor Code applies to all assignments in this class (quizzes, exams, reports, lab write-ups). Quizzes and exams are closed book. You may discuss the skeletal report and lab write-ups openly with your classmates and share ideas. However, the final written reports must be the work of each individual student. If you have questions about how the Honor Code applies to this course, consult Dr. Killgrove before the assignment is due. Further information can be found in the Vanderbilt Student Handbook: http://www.vanderbilt.edu/student_handbook/chapter2.html.

**Disability Services and Accommodations:**
Students who need disability-related classroom accommodations should make an appointment to see Dr. Killgrove as soon as possible and should contact the Opportunity Development Center at 322-4705 (Box 1809-B).
## Course Outline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading Due</th>
<th>Assignments Due</th>
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<tbody>
<tr>
<td><strong>UNIT 1</strong></td>
<td><strong>Introduction to Osteology</strong></td>
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</table>
| 8/25 | What is Human Osteology? | White Ch. 1  
Course Guidelines | Baker Ch. 1 |
| 8/30 | Skeletal Terminology, Laboratory Rules | White Chs. 2 & 3 | Biology of the Human Skeleton |
| **UNIT 2** | **The Human Skeleton** | | |
| 9/1 | Skull Skeleton Assignments | White Ch. 4  
Baker Chs. 3 & 4 | Skeleton Lab |
| 9/6 | Dental Anatomy, Terminology, and Development | White Ch. 5, pp. 101-109 | QUIZ 1, Skull Lab |
| 9/8 | Adult Dentition | White Ch. 5, pp. 109-128  
White Appendix 2 | |
| 9/13 | Subadult Dentition | Baker Ch. 5 | QUIZ 2, Tooth Lab |
| 9/15 | Vertebrae & Hyoid | White Ch. 6  
Baker Ch. 6 (pp. 75-86) | |
| 9/20 | Shoulder Girdle and Ribcage | White Chs. 7 & 8  
Baker Ch. 7 | QUIZ 3, Vertebrae Lab |
| 9/22 | Arm and Hand | White Chs. 9 & 10  
Baker Ch. 8, pp. 103-112  
Baker Ch. 9, pp. 124-137 | |
| 9/27 | Bipedalism and the Pelvis | White Ch. 11  
Baker Ch. 6 (pp. 86-92) | QUIZ 4, Arm/Hand Lab |
| 9/29 | Leg and Feet | White Chs. 12 & 13  
Baker Ch. 8, pp. 112-123  
Baker Ch. 9, pp. 138-153 | |
| 10/4 | Excavation and Retrieval | White Ch. 15  
Baker Ch. 2 | QUIZ 5, Pelvis Lab |
<p>| 10/6 | No Class – Fall Break | | |
| 10/11 | Animal Bones &amp; Taphonomy | White Ch. 20 | QUIZ 6, Leg/Foot Lab |
| 10/13 | MIDTERM | | |</p>
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<tr>
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<tbody>
<tr>
<td>UNIT 3</td>
<td>Identifying Individuals</td>
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<tr>
<td>10/18</td>
<td>Sex</td>
<td>White Ch. 16, pp. 352-354 White Ch. 18, pp. 408-417</td>
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<tr>
<td>10/20</td>
<td>Age at Death – Adult &amp; Subadult</td>
<td>White Ch. 18, pp. 379-408 Baker Ch. 10</td>
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<tr>
<td>10/25</td>
<td>Stature</td>
<td>White Ch. 18, pp. 418-421 Bass Ch. 1, pp. 21-28</td>
<td>QUIZ 7, Sex/Age Lab</td>
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<tr>
<td>10/27</td>
<td>Ancestry</td>
<td>White Ch. 18, pp. 421-426 Byers Ch. 7 AAPA Statement on Race</td>
<td>QUIZ 8, Stature/Ancestry Lab</td>
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<tr>
<td>11/1</td>
<td>Pathology – Dental</td>
<td>White Ch. 19, pp. 454-457</td>
<td>QUIZ 9, Pathology Lab I</td>
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<tr>
<td>11/3</td>
<td>Pathology – Trauma</td>
<td>White Ch. 19, pp. 433-439</td>
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<td>11/8</td>
<td>Pathology – Arthritis and Nonspecific</td>
<td>White Ch. 19, pp. 441-443</td>
<td>QUIZ 10, Pathology Lab II</td>
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<td>11/10</td>
<td>Pathology – Nutritional</td>
<td>White Ch. 19, pp. 447-448</td>
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<td>11/15</td>
<td>Nonmetric Variation, Photography</td>
<td>White Ch. 21 &amp; Appendix 1 White Ch. 16, pp. 345-349</td>
<td>QUIZ 11, Pathology Lab II</td>
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<td>11/17</td>
<td>Ethics of Analysis</td>
<td>White Ch. 17, NAGPRA</td>
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<td>11/22-24</td>
<td>No Class – Thanksgiving</td>
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<td>UNIT 4</td>
<td>Applications of Osteology</td>
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<td>11/29</td>
<td>Bioarchaeology</td>
<td>White Chs. 25 &amp; 26</td>
<td>QUIZ 11 Skeletal Project Due</td>
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<td>12/1</td>
<td>Forensic Anthropology</td>
<td>Byers Ch. 3 White Chs. 23 &amp; 24</td>
<td>QUIZ 12</td>
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<td>12/6</td>
<td>Palaeoanthropology</td>
<td>White Chs. 27 &amp; 28</td>
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<td>12/8</td>
<td>Medical &amp; Dental Professions</td>
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<tr>
<td>12/10</td>
<td>FINAL EXAM, 3pm</td>
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### Bibliography

**Additional Required Readings:** (found through OAK)
Native American Graves Protection and Repatriation Act (NAGPRA) 1990.

#### Books on Reserve: (for projects and further information; may be listed under ANTH 274)

- * = Central Library
- @ = Lab
- # = eBook

@van Beek, GC. 1983. *Dental Morphology: An Illustrated Guide*. Wright.