Biological Anthropology Lab

ANTHR1L Fall 2013, Room 431
Sections: MW 12:40pm-2:00pm #80338, Th 2:20pm-5:25pm #80344
Instructor: Michelle Y. Merrill, Ph.D. Office: Room 429C
Office Hours: Mondays 2:00-2:45 & 5:15-5:50pm, Wednesdays 12:00-12:30pm
Thursdays 11:00-11:45am, 1:50-2:10pm & 5:25-5:45pm & other times by appointment
Contact Info: michelle.merrill@cabrillo.edu; http://cabrillo.edu/~mmerrill/
Phone: 477-3700x1620 (messages only) Skype: michelle.y.merrill

Cabrillo login/username: _____________ Cabrillo password: _____________

COURSE OVERVIEW

Biological Anthropology is the scientific study of humans as biological organisms: our biological diversity, our evolutionary relationships to other organisms, and our origins, including the study of living primates, human variation, and the fossils of human ancestors and related species.

The lab course will give you opportunities to explore this science in greater detail, the material you are learning (or you have learned) in your lecture course. You will have opportunities to participate in discussions and simulation activities (games) with your classmates, and may even perform some measurements and tests on one another. You will get to carefully observe and very carefully handle skeletal material and casts of fossils.

Course Objectives & Student Learning Outcomes

By completing this course, students should be able to apply the scientific method and lab techniques to the comparison of living and fossil human and non-human primate specimens. Specifically, students will be expected to:

1. apply the scientific method to the analysis of lab activity results or materials
2. demonstrate the principles of natural selection, inheritance and basic genetics
3. identify bones and bone elements of the skeleton in humans and other species
4. compare and evaluate non-human primate and human skeletal and dental features
5. classify primates according to diagnostic features of taxonomic groups
6. observe and evaluate primate behavior using anthropological practices
7. demonstrate and apply anthropometric techniques
8. identify key anatomical features of the hominids and other taxonomic groups
9. analyze and compare skeletal materials to determine or infer species, age, sex, stature and behavior of the living organism

This class provides opportunities to develop skills in all of Cabrillo’s “Core Four” competencies:

1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
   o comprehending written and spoken laboratory instructions
   o noting observations, results or measurements
   o writing out responses to thought questions
   o conversing with peers and instructor
II. **Critical Thinking and Information Competency:** Analysis, Computation, Research, Problem Solving  
  - careful observation and measurement  
  - analyzing simulation results or observations of materials  
  - solving problems by applying basic mathematics and careful reasoning  

III. **Global Awareness:** An Appreciation of Scientific Complexities, Social Diversity and Civics, and Artistic Variety  
  - using the methods and practices of biological anthropology  
  - learning biogeography and ecology of human ancestors and other primates  

IV. **Personal Responsibility and Professional Development:** Self-Management and Self-Awareness, Social and Physical Wellness, Workplace Skills  
  - arriving on-time and prepared to do the assigned work  
  - taking personal responsibility for completeness and accuracy of lab work  
  - working productively with peers to complete assignments  
  - asking for clarification and assistance from the instructor  

**Course Requirements**  
- You must be currently enrolled in, or have already passed ANTHR 1 (lecture).  
- Bring your **printed labsheet** for the week to each session. Labsheets will be available to print on the instructor’s website at least one week ahead. It is always a good idea to bring a calculator, and any lecture materials (e.g. textbook and notes) to lab.  
- Work with your lab team, but do not copy answers without understanding the process through which they were determined.  
- **Arrive on time** to lab and **do not leave** until you check out with the instructor or the instructor dismisses the class. Students are expected to participate in setting up and cleaning up lab materials.  

**Common Courtesy and Common Sense**  
Students frequently discover that not everyone shares their personal beliefs, experiences, and convictions. Respect for many points of view is required in this class. Disagreements are healthy and help us to learn, but students must maintain a respectful attitude and courteous conversation at all times. My goal as an instructor is not to convince you to hold a particular opinion on controversial issues, but to encourage you to think critically and with an open mind about the facts, evidence, ideas and theories presented in class.  

Phones and pagers should be **SILENCED** at all times and any **calls or messages must be ignored during class** (an exception may be made for caretakers who can keep their phones/pagers on vibrate for emergency situations, provided the instructor is notified ahead of time). You should have nothing in your ears other than hearing aid devices if needed. **Texting during class is not acceptable.**  

Calculators, tablets, and laptop computers are permitted during class provided they are quiet and they are being used to improve your learning in class. Even smart phones are permitted for taking notes or doing research when appropriate. Classroom etiquette regarding other portable electronic devices is not unlike takeoff and landing on an airplane - they should be turned off and stowed away.  

These and other behavioral norms are expected to **minimize classroom disruptions and avoid disturbing your fellow students.** Arrive on time for class. Do not interrupt the instructor or your classmates while they are speaking, but by all means **DO** raise your hand when you have a question
or comment. Basically, use a little common sense, try to imagine what is likely to annoy your instructor or your classmates, and then avoid doing those things if you wish to remain in class.

**Grading**

As with so many things, the essence of success in lab is showing up – not only being physically present, but being prepared, paying attention and actively engaging with the work at hand. Your grade will be based on your participation (25% – note that *you will lose partial credit for the day if you are more than a few minutes late, if you are unprepared, if you are disruptive or if you are not productively engaged with the work*), your completion of lab assignment sheets (50%), and your performance on the mid-term (10%) and final (15%) lab exams.

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-90%</td>
<td>A</td>
</tr>
<tr>
<td>89-80%</td>
<td>B</td>
</tr>
<tr>
<td>79-70%</td>
<td>C</td>
</tr>
<tr>
<td>69-60%</td>
<td>D</td>
</tr>
<tr>
<td>59-0%</td>
<td>F</td>
</tr>
</tbody>
</table>

**Participation:** This course requires active participation each day of class so it is important for you to attend every class session, arrive on time, and come prepared. Your participation not only enhances your own learning, it benefits other students in the class, especially when working in teams (most of the time in this class). Your level of participation is reflected in your grade and since you can’t participate if you are not in class, absences, tardiness and early departures will also be reflected in your grade.

**Labsheets** will be accepted for review upon completion each week. If you need more time to finish answering thought questions, the labsheet will still count as on-time if submitted at the beginning of class the session after completion of the lab assignment. Please staple or clip sheets together to hand in for review. Labsheets are graded for completeness, not for accuracy. *Confirming the accuracy of your lab notes is your responsibility*; if you are in doubt about your answers on a labsheet, check with the instructor during the lab activity.

Each labsheet will be graded on a 10-point scale:

- 10: very thorough and complete, nothing missed
- 9: left one or two small questions/blanks, or a response to a thought question was not very thorough
- 8: left 3 or 4 blanks, multiple thought questions with weak responses, or a major thought question unanswered
- 7: many blanks, multiple questions or page left incomplete
- 6: 1/3 of the assignment undone
- 5: 1/2 of the assignment undone
- etc.

**Exams are open-note,** so you are well advised to carefully and thoroughly complete all lab sheets, and keep them neat and in order. While your work in regular lab sessions will most often be in teams, you may need to work independently during the lab exams. Cheating on exams is grounds for an immediate failing grade in the class.
Make-Up Work and Extra Credit

Setting up for labs and exams takes a lot of time and effort, and many lab activities require the presence and participation of your classmates. Therefore there are no make-ups for exams without a verifiable excuse (e.g. note from doctor’s office).

Only one make-up lab is allowed per student. Make-up labs will consist of completing related work in the *Human Evolution Coloring Book* as described on the class website (or other work to be determined by the instructor) and must be completed within two weeks of your absence. You will still be responsible for knowing what went on in lab and how to recognize materials for lab exams, so I strongly recommend contacting a classmate and discussing the lab activity with them, and making notes on a copy of the lab sheet (available on website).

Extra-credit work may be available provided you request it by the 12th week of class. The assignment, its value, and its due date are entirely up to the discretion of the instructor (whiners will receive less credit).

Accommodations: ADA Compliance

Students needing accommodations should contact the instructor ASAP. As required by the Americans with Disabilities Act (ADA), accommodations are provided to ensure equal opportunity for students with verified disabilities. If you need assistance with an accommodation, please contact Disabled Student Services, room 1073, 479-6379, or Learning Skills Program, room 1073, 479-6220.

Sustainability Considerations in this Class

I am personally very concerned about sustainability, and Cabrillo College is increasing its efforts to operate sustainably (particularly in those ways that also save the college money for operations, thereby making more money available for offering classes; see cabrillogreensteps.org). I have instituted policies and practices to make this class more environmentally-friendly and cost-effective:

- **minimal handouts**: informational materials are available online and/or will be displayed onscreen during class, to reduce paper use/waste and copying costs; when possible I will re-use or double-side any materials I do need to distribute.
- **low-waste lab activities**: I tend to select and design lab activities in which most of the supplies are reusable. Please handle them appropriately, and offer any suggestions you have for further savings or reuse of supplies.

Please do the following to help Cabrillo College meet our sustainability goals (and save the college money so that we can direct it to classes and student services!):

- **responsible printing**: If you can, please double-side your lab sheet printouts. If not, consider printing on the blank backs of paper that has already been used once (e.g. drafts of homework or used handouts from other classes - avoid anything with personal information you do not want seen by your classmates). I don't mind funky colors or newsprint texture, as long as your printout is clear enough for you to work with.
- **recycle properly**: Almost all Cabrillo classrooms have three waste bins:
  - bottle/can recycling - most glass, plastic and juice boxes can go in here
  - paper recycling - any clean/dry paper or cardboard (NOT coffee cups or food plates) - but **remember to keep all your labsheets for the exams**
  - waste - this is the stuff that actually goes to the landfill (remember that Cabrillo has to pay for this, but not for the recycling, so only put it in here if you have to)
- **save energy**: If you notice that the door is open and the heat is running, please close the door (let the instructor know if it gets too warm - we can contact M&O if the classroom is consistently too warm). If you are the last person to leave the room, please turn off all lights and close the door.
- **reduce your commute impact**: Bike, bus, or see if you can find classmates for carpooling. (I bike or bus nearly every day, and if I can do it, almost anyone can.) Over half of Cabrillo College’s carbon footprint is due to commuting, mostly solo trips in cars. Plus, the fewer cars coming to campus, the less we need to build, maintain and monitor parking. Learn more at [CabrilloGreenSteps.org](http://CabrilloGreenSteps.org)

**Biological Anthropology Lab Schedule**

Note: these dates and topics are subject to change. Changes will be announced in class and posted on the course website. It is your responsibility to make sure you are aware of any revisions.

<table>
<thead>
<tr>
<th>Wk</th>
<th>M/W Dates</th>
<th>Thurs Dates</th>
<th>Topic/Notes (Labsheets to Print: Password Protected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9/4, 9/9</td>
<td>9/5</td>
<td>Intro: What Is Science?</td>
</tr>
<tr>
<td>2</td>
<td>9/9-9/11</td>
<td>9/12</td>
<td>Natural Selection</td>
</tr>
<tr>
<td>3</td>
<td>9/16-9/18</td>
<td>9/19</td>
<td>Skeletal Anatomy and Evidence for Evolution</td>
</tr>
<tr>
<td>4</td>
<td>9/23-9/25</td>
<td>9/26</td>
<td>Genetics</td>
</tr>
<tr>
<td>5</td>
<td>9/30-10/2</td>
<td>10/3</td>
<td>Introduction to Primate Studies</td>
</tr>
<tr>
<td>6</td>
<td>10/7-10/9</td>
<td>10/10</td>
<td>Primate Classification and Morphology (Primate Anatomy and Variation)</td>
</tr>
<tr>
<td></td>
<td>10/14-10/16</td>
<td>10/17</td>
<td>Primate Behavior and Diversity (Part II of Primate Studies: independent observation and research – class meetings optional)</td>
</tr>
<tr>
<td>7</td>
<td>10/21-10/23</td>
<td>10/24</td>
<td>Primate Social Strategies and Evolution, Population and Demographics</td>
</tr>
<tr>
<td>8</td>
<td>10/28-10/30</td>
<td>10/31</td>
<td>Primate Behavior Analysis; Primate Ecology</td>
</tr>
<tr>
<td>9</td>
<td>11/4-11/6</td>
<td>11/7</td>
<td>Lab Midterm Exam – bring all labsheets; Primate Evolution</td>
</tr>
<tr>
<td>10</td>
<td>11/13, 11/18</td>
<td>11/14</td>
<td>Osteology &amp; Forensics</td>
</tr>
<tr>
<td></td>
<td>11/27 – extra credit</td>
<td>11/28 Thanksgiving</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>12/2-12/4</td>
<td>12/5</td>
<td>Later Fossil Hominins; last day to request extra credit</td>
</tr>
<tr>
<td>13</td>
<td>12/9-12/11</td>
<td>12/12</td>
<td>Fossil Review; extra credit</td>
</tr>
<tr>
<td>14</td>
<td>12/18, 10 am-12:50 pm</td>
<td>12/19, 1:00-3:50 pm</td>
<td>FINAL EXAM: Bring all labsheets.</td>
</tr>
</tbody>
</table>

*My gratitude to Kristin Wilson and Jim Funaro for their contributions to and assistance in preparing earlier versions of this syllabus.*