

ANTHROPOLOGY 1L: PHYSICAL ANTHROPOLOGY LAB

Class Website: <http://www.anthrolabgav.weebly.com>

FALL 2016
Friday 9:00 am - 12:10 pm
Social Science, Rm. 205
CRN 10539

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Office Hours:
Friday 8:30 - 9:00 am (Rm. 205)
& 30 min. following class

Introduction

Physical or Biological Anthropology is the study of human biological origins, adaptations, and evolution through the historical and comparative biology of humans. This requires us to contextualize humans within the animal kingdom and to focus on the characteristics we share with our primate relatives as well as the origins of uniquely human attributes. This class uses a variety of hands-on exercises and materials to help students learn the methods and techniques used for gathering and analyzing physical anthropological data. Lab sessions will be broken up into the following general subject areas:

1) The Scientific Method; 2) Natural Selection and Evolutionary Genetics; 3) Comparative Primate Behavior & Anatomy; 4) Human Osteology & Forensic Anthropology; and 5) the Human Fossil Record.

Student Learning Outcome: By the end of the course students will be able to: 1) Apply the scientific method and lab techniques to the comparison of living human, fossil human, and nonhuman primate specimens; 2) Demonstrate knowledge of and ability to apply the scientific method and analysis of primate skeletal material; 3) Describe and demonstrate the principles of inheritance and population genetics as they relate to human evolution; 4) Identify primate bone names, anatomical elements, and locomotor behavior; 5) Evaluate and debate social, cultural, environmental, or other influences on hominid adaptation and survival over time; 6) Explain a variety of primate and/or hominid evolutionary patterns over time; 7) Assemble or organize specimens and/or models used in physical anthropology (skeletal, dental, genetic, geological); 8) Apply basic forensic field methods for analyzing and interpreting human remains; 9) Research an anthropological topic and prepare the results for public and/or classroom presentation; 10) Distinguish scientific methodology from other methods of evaluation or thinking.

Required Materials

Students will need to print out the lab worksheets that will be used each week in class. Worksheets are posted on the class webpage. ALL labs used for each section must be printed by the date indicated on the webpage as part of the participation grade for the labs.

Course Activities/Organization

The first 10-15 minutes of each class will generally be reserved for discussing the concepts, materials and procedures necessary to complete that day's lab exercises. The remainder of the class time will be spent completing various lab exercises such as conducting experiments, completing lab activities or watching a video.

Most lab exercises will require you to work in small groups of two, three or four students. These groups will usually be assigned randomly in order to give you an opportunity to work with and get to know your classmates. Please note that while the exercises are designed for group participation, your actual **lab assignments are to be completed INDIVIDUALLY. You are encouraged to work**

together, but the answers each of you provides on lab assignments *should be yours and yours alone*.

Grading for Lab Assignments

Lab assignments are generally due at the end of the session. Others are to be completed as homework, but are expected to be *fully completed* by the next lab session. Lab assignments are checked for *thoroughness and completeness* of the assignment. Performance on and participation in weekly lab exercises will be graded on a 100 point scale for the purpose of assigning an overall grade to lab exercises. **Late assignments and missed lab sessions will result in deductions.**

Students will receive an answer sheet with the correct responses when graded assignments are returned (this is not applicable to ALL lab assignments). **It is your responsibility to review the answer sheets and compare your responses in order to prepare for exams. LAB ASSIGNMENTS ARE ESSENTIALLY PRACTICE FOR THE EXAMS.**

Attendance

Regular attendance is essential for success in this class. You are expected to participate in and complete all lab activities and assignments. ***If you miss a lab session, you automatically lose the points associated with the lab exercises for that class. Lab exercises and other in-class assignments (if applicable) may be made up only by those individuals with excused absences.*** If you miss a class, please contact me as soon as possible to make arrangements to cover what you missed. Please note, not all lab assignments can be made up (see Tips for Success below).

Examinations

Exams reflect the activities completed in the lab sessions and the format varies for each exam based on the material covered. Study guides will be posted to the class webpage the week prior to the exam. Make-up exams will only be given to those students who present a written, authorized excuse (i.e. from a doctor, professor, counselor, etc.) AND who arrange for such a make-up prior to the scheduled exam. If an emergency arises, please make sure to contact me as soon as you are able to schedule a make-up for the soonest date possible. Please note that the make-up exam will not be identical to the original exam given to the class. There is a “No Electronics” policy in this class during exams. Only emergency calls may be answered, otherwise, all devices must be silenced and/or put away for the duration of the exam (unless otherwise specified by instructor). Students in violation of this policy will be asked to leave the classroom & forfeit their exam and the associated points.

Evaluation

Students will be evaluated based on their performance on three exams and completion of lab and various in-class exercises. Final grades are calculated based on the total number of points you earn for ALL assignments. Distribution of points per assignment is as follows:

Three Exams	300 points (100 pts. per exam)
Lab Assignments & Participation	100 points
TOTAL POINTS	400

GRADE SCALE:

360 points & higher = A; 359-320 = B; 319-280 = C; 279-240 = D; 239 points & below = F

EXTRA CREDIT: Every student has an opportunity to earn up to a MAXIMUM of 25 extra credit points over the course of the semester. *Consult the class webpage for extra credit opportunities.*

Miscellaneous

Student Responsibilities: Students are responsible for knowing and adhering to due dates, exam dates, and reading assignment completion dates (see Topical Outline & class webpage) as well as obtaining any materials accessed through the webpage or distributed in class. Students are responsible for obtaining and completing any missed assignment materials, including videos shown in class.

Those students who do not wish to continue the course are responsible for dropping or withdrawing using Banner or through Admissions and Records. **Please note that it is the student's responsibility to drop the class. Failure to officially drop or withdraw from the course may result in an "F."**

Important Dates:	9/9	Last day to add a full term course
	9/11	Last day to drop a full term course with a refund and NRS status ("No Record Shown")
	9/30	Deadline for pass/no pass grade option
	11/18	Deadline to withdraw from course with a "W" on record

Students Requiring Accommodations

Students requiring special services or arrangements because of hearing, visual, or other disability should contact the Disability Resource Center at 408/848-4865, visit the DRC office in Library 117, or use the link that follows for more information. <http://www.gavilan.edu/drc/> Please be sure to bring me your DRC accommodations forms/recommendations.

Classroom Conduct / Academic Honesty

Classroom standards and student conduct for this class follow the Student Code of Conduct outlined in the Gavilan College Catalog. Students are expected to exercise academic honesty and integrity in accordance with the ASB initiated policy (copies of the policy are published in the general catalog and the "Student Handbook"). ***All work turned in for grading should be original (that means YOUR OWN). Copying another's work without giving them credit, whether a lab assignment sheet or answers during a test, is considered plagiarism. Plagiarism is a form of cheating and will result in disciplinary action that may include a recommendation for dismissal.***

Finally - If at any point in the semester you have questions or find you are having difficulty with the material, please come talk to me during my office hours, send me an email, or call me so we can work together to promote your success. Please do not wait until the end of the semester to address whatever issues or concerns arise. I am here to help you succeed!

Tips for success in this Class:

- ✓ Attend all lab sessions. *Each week's lab activities are essentially, practice for the exams. The majority of lab exercises are group activities which require your participation and therefore cannot be made up or replicated on your own.*
- ✓ Complete the lab worksheets, thoroughly and thoughtfully. *Although you will often be working in groups, you must be sure you understand the questions being asked and the answers you provide. Exams are based heavily on what you've worked on in the lab worksheets.*
- ✓ Ask ME for help if you get stuck on any of the lab material. Do not wait until the day before the exam or the end of the semester to get assistance. I'm here to help you succeed!

ANTHRO LAB - TOPICAL OUTLINE AND SCHEDULE

Week One - September 2nd

Introduction to Class & Anthropology - Review Syllabus & Class Overview

Lab Exercise: *The Scientific Method: What's on the Bottom of the Box?*

Week Two - September 9th

The Nature of Science & The Scientific Method

Readings: "Using Science to Think Anthropologically" by R. O'Brian and P. Rice (2008).
In P. Salzman and P. Rice, Eds., *Thinking Anthropologically: A Practical Guide for Students*. 2nd Edition. New Jersey: Prentice Hall.

Lab Exercise: *Scientific Method, Continued: Thinking Critically & Empirically*

Week Three - September 16th (NOTE: Bring a calculator to class)

Natural Selection

Readings: "The Evolution of Evolution" and Instructions for Natural Selection Simulation

Lab Exercise: *Natural Selection Simulation*

Week Four - September 23rd

Evolutionary Genetics

Readings: "Understanding Genetics," Evolutionary Genetics Cheat Sheet & YouTube Video "18 Things You Should Know About Genetics"

Lab Exercise: *Evolutionary Genetics*

Week Five - September 30th (NOTE: Bring a calculator to class)

Study Guide Posted to Class Webpage

Evolutionary Genetics, Continued

Readings: Cover sheet of Genes in Populations Lab

Lab Exercise: *Genes in Populations*

Week Six - October 7th

EXAM 1

Week Seven - October 14th

Introduction to Primates & Primate Taxonomy

Readings: From webpage - "The World of Primates" "Manual Dexterity," "Visual Communication," and "Comparative Anatomy: Primate Skulls"

Lab Exercises: *Video & Response: Life in the Trees*
Primate Diversity & Adaptation
Defining the Order Primates
Traits of Primates
Post-Cranial Comparative Anatomy

Week Eight - October 21st

Primate Labs Continued

Week Nine - October 28th

Study Guide Posted to Class Webpage

Primate Labs Continued

Week Ten - November 4th

EXAM 2

Week Eleven - November 11th

VETERANS DAY HOLIDAY - No Class

Week Twelve - November 18th

Session 1: Human Osteology & Bipedal Locomotion

Readings: "It's All in the Bones" and "Early Hominids"

Lab Exercises: *Osteology 101 - to be completed outside of class & due on 11/18 in lab*

Building Bodies - to be completed outside of class & due on 11/18 in lab

Early Hominids (Internet Assignment) - to be completed outside of class & due on 12/2 in lab

Dem Bones - in lab assignment

Session 2: Fossil Hominids - Australopithecine Behavior & Anatomy

Lab Exercise: *Early Ancestors*

Week Thirteen - November 25th

THANKSGIVING HOLIDAY - No Class

Week Fourteen - December 2nd

Fossil Hominids: Evolution of Hominids from the Genus *Homo*

Lab Exercise: *Evolution of the Genus Homo*

Video: In Search of Human Origins Video & Response, Part 2

Week Fifteen - December 9th

Study Guide Posted to Class Webpage - Review for Final Exam

Neanderthals and *Homo sapiens*

Lab Exercises: *Bones of Contention*

Hominid Evolution in Review

In Search of Human Origins Video & Response, Part 3

Week Sixteen - December 16th

FINAL EXAM - 8:00 - 10:00 a.m.

Note: This topical outline/schedule is provided as a guide. Dates, scheduled topic, and other information are subject to change at the instructor's discretion. All changes will be announced in class, and any major changes will be provided to you in written form.