Physical Anthropology  
(Anthro 1)  
Spring 2015  
Tues & Thurs 4 – 5:25pm  
Social Science Bldg, Rm #127  
Section: 2028  

Instructor: Janaki Natalie Parikh  
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Course description:  
This course explores and emphasizes the evolution and physical diversity of the human species. Topics include genetics, mechanisms of evolutionary change, human variation, and the reconstruction of human evolutionary history through examination of the fossil record and comparative studies of the living non-human primates.

Upon completion of this course, students will be able to:  
1. Demonstrate an understanding of the concept of the scientific method & its significance to science.  
2. Describe and evaluate the major ideas that preceded and led to the development of evolutionary theory and analyze modern theories of Darwinian evolution through natural selection.  
3. Identify and describe the processes by which genetic information is transmitted from one generation to the next.  
4. Identify & discuss the various components of the DNA molecule & the process of protein synthesis.  
5. Explain and assess the mechanisms of evolutionary change and explain how each one contributes to the evolutionary process.  
6. Contrast point & chromosomal mutations & discuss the significance of point mutations to evolution.  
7. List the major anatomical characteristics of primates associated with movement and the senses, and explain how they evolved as adaptations to an arboreal environment.  
8. Contrast the major forms of primate social structure and describe their relationship to the primate species’ ecology.  
9. Explain the differences between relative and chronometric dating and provide an example of chronometric dating using a radiometric technique.  
10. Evaluate the benefits of bipedalism in reference to the particular environment in which most hominin evolution occurred.  
11. Compare and contrast the skull characteristics of Australopithecus africanus, Australopithecus (or Paranthropus) boisei, and Homo habilis in relation to the particular diet of each.  
12. Contrast the anatomical characteristics of Homo habilis and Homo erectus, and analyze those contrasts in reference to their respective environments and subsistence strategies.  
13. Analyze the characteristics of Homo neanderthalensis in reference to the environment in
which this hominid lived.
14. Evaluate the models that account for the origin of Homo sapiens, outlining the major criteria and evidence supporting each.
15. Outline the cultural stages in the evolution of the genus Homo, making reference to the particular Homo species, tool industry, and environmental context associated with each stage.
16. Explain the difference between physiological adjustments and adaptations and explain skin color and body build as adaptations to particular environments.

**Student Learning Outcomes:**

**Anthropology 1 Introduction to Physical Anthropology SLO #1 Natural Selection** In a written assignment, students will explain how natural selection is related to environmental factors by using an example that identifies key processes of natural selection and illustrates how selective pressures can change.

**Anthropology 1 Introduction to Physical Anthropology SLO #2 Primate Arboreal Adaptation** In an in-class assignment or objective exam question, students will demonstrate an understanding of primate adaptation by describing the major anatomical characteristics of primates associated with movement and the senses, and identifying how they evolved as adaptations to arboreal environments.

**Anthropology 1 Introduction to Physical Anthropology SLO #3** In a written assignment or objective exam question(s), students will demonstrate an understanding of human evolution by comparing and contrasting the anatomical and behavioral features of modern Homo sapiens with various extinct species of the Genus Homo (e.g. Neandertals, H. erectus, H. habilis).

**Required Texts:**


*Note: Use of prior edition (1 previous from current) is acceptable for either book

**Student Course Requirements:**

**Readings:** It is recommended that you read the assigned text prior to class lecture. Class lectures will not necessarily cover all of the material in your book, however, you may be tested on assigned readings even if they are not covered in class.

**Films:** Films will be shown throughout the course. The exam will include questions that are specific to the information covered in the films. Note-taking during films is advised.

**Lectures:** Lectures given in class will cover material from the assigned text and may also include material not found in the text. Overheads and handouts will elaborate on concepts brought forth in the readings. **If you miss class, it is your responsibility to see**
the instructor for any handouts which may have been provided and to obtain notes from another student.

**Attendance/Tardies:** To successfully complete this class you must attend regularly. A portion of your grade is based on class participation, thus, regular absences will adversely affect your course grade. Attendance will be recorded in class at the beginning of class. Students will be allowed 3 unexcused absences without grading penalty. If a student is absent 3 or more times the attendance/class participation portion of the grade will be lowered accordingly & a student may be dropped for excessive consecutive absences. A maximum of 1 additional absence will be excused for medical or legal reasons with proper documentation. **Due to overwhelming demand for courses, I will be implementing a modified drop policy during the first 2 weeks of classes, please listen for details announced at the first class meeting, the policy will apply to all students whether the student was present for the announcement or not.**

Arriving late and/or leaving class before dismissal is disruptive to the class. If you must leave class early, as a courtesy, please notify me at the beginning of class and make arrangements to find a seat near the exit to minimize disruption as much as possible. While you are encouraged to come into class as long as we are in session, please be aware that arriving more than 15 minutes late or leaving more than 15 minutes early may be considered an absence for that class period & that habitual tardies will adversely affect your course grade.

**Classroom Conduct:** Creating a positive classroom culture is a joint effort between the instructor and the students. We can all contribute to a positive learning environment by actively participating in class discussions and activities. At times we may disagree on a particular point; however, our discussions will always remain respectful of these differences. Insulting or discriminating comments to the instructor, to other students, or to individuals or groups outside the classroom are not acceptable classroom behavior. Also, chatting with a classmate while instruction is taking place is distracting and impolite towards the instructor and your fellow classmates. Such conduct may result in you being asked to leave the class for the remainder of that session with no attendance credit for that meeting.

**Homework Assignments:** In addition to readings, students are expected to complete 2 out-of-class homework assignments. **Please do not email homework submissions, I do not accept assignments via email.** These assignments will be due at the beginning of class on the day they are due, refer to the class schedule for specific due dates, all typed submissions should be 1.5 or dbl spaced, single spacing may result in a points deduction. Homework will be graded primarily on correct completion of the assignment, although grammar & formatting of the assignment will be considered as well. **Late homework:** Homework is due on the date in the schedule. Assignments will be accepted a maximum of 2 class meetings after the deadline, but one letter grade worth of points will be immediately deducted as a late penalty. **Expert Group Presentations:** If a student is absent &/or tardy on the day he/she is scheduled to present, the student
waives his/her right to presentation points, unless the instructor has provided email confirmation that the absence has been excused &/or the presentation rescheduled prior to the due date. Please be advised that grading of late homework receives a lower priority than on-time submissions and that the instructor offers no guarantees on the timely return of materials that are deemed late submissions.

Exams: There will be 3 in-class exams, consisting of multiple choice, fill-ins, true/false, and short answer/essay questions. For exams & quizzes, you will need an 882-E scantron form and a #2 pencil. Exam questions will be based on assigned readings (text and handouts), films, lecture, homework assignments and class discussions. Exams will not be cumulative. Students are expected to take the exam at the scheduled time, make-up exams will not be given. In extenuating circumstances, with proper documentation, a make-up may be scheduled at the instructor’s discretion & subject to the instructor’s schedule of availability.

Student Services: El Camino College offers a variety of services to aid students in being successful. These services include: learning skills center, tutoring, and supplementary workshops. If you are struggling with the material, it is recommended that you seek out and utilize these support services. To learn more, please visit the Learning Resources Center website at: http://www.elcamino.edu/library/lrc/.

Academic Honesty Policy: Students are expected to abide by ethical standards in preparing & presenting material which demonstrates their level of understanding & which is used to determine course grades. Students are expected to observe the following guidelines:

1) Students shall not plagiarize, this includes: claiming credit for the words or ideas or another as your own and/or utilizing another person’s creative production without crediting the source. You may study together, but you may not turn in the same work, use your own words in completing the assignments.

2) Students shall not cheat, this includes, using notes, aides or the help of other students on the exams or quizzes in ways other than those expressly permitted by the instructor.

I consider academic dishonesty a serious offense, and it will be treated accordingly should the situation arise. Academic dishonesty is a disservice to yourself and your peers. As your instructor I may deal with the situation in one of the following ways: assignment of an “F” grade on all or part of the exam, paper, or project, assignment of an “F” in the course, and/or reporting the student to the appropriate administrators for further disciplinary action.

Any student who has been cited for an alleged act of academic dishonesty will be automatically disqualified from any bonus/extra credit points earned up to that point in the course & may be ineligible for further extra credit participation.

Services for Students with Disabilities: If you have need of special accommodation for a learning or physical disability, please notify me at the beginning of the semester. El
Camino College is committed to providing reasonable accommodations for students with disabilities, upon request of the student and upon verification of a disability.

**Dropping the class:** If you choose to drop the course, it is your responsibility to officially drop the course via admissions & records, and to do so by the campus deadline for course withdrawal. If you simply stop attending, an “F” grade will be submitted by the instructor. Refer to the college Catalog as the official publication addressing and guiding academic and student services policies.

**Class Schedule:**
*Schedule may be altered by instructor if necessary. Changes will be announced in class*

**Week 1: 1/20 & 1/22**
Text: AE: Evolution in Action
Intro & icebreaker (course outline)

**Week 2: 1/27 & 1/29**
Text: Chap 1
AE: Darwin & natural selection, begin Mendelian genetics

**Week 3: 2/3 & 2/5**
Text: Chapter 2
AE: Cont. Mendelian genetics, begin Molecular structure & function of genetic material

**Week 4: 2/10 & 2/12**
Text: Chapter 3
AE: Curse & Blessing of the Ghetto
Cont. Molecular structure & function of genetic material, begin human polymorphisms

**Week 5: 2/17 & 2/19**
Text: Chapter 4
AE: America's Science Problem
Cont. Human polymorphisms, film

**Week 6: 2/24 & 2/26**
Exam #1 (Thurs 2/26)
Text: AE: Lecture catch-up, Exam Review & Exam

**Week 7: 3/3 & 3/5**
Text: Chap 5
AE: Skin Deep
Race: a product of culture

**Week 8: 3/10 & 3/12**
Text: review Chap 4
AE: The Tall & Short of It
Continue race unit, evolutionary scale & speciation

**Week 9: 3/17 & 3/19**
Spring Break-no class mtgs.
Spring Break: Have fun, Be Safe!

Week 10: 3/24 & 3/26  **E.G. Sessn 1 Presenters: Quiz Q's Due 3/24**
Text: Chap 6  AE: How Real is Race?
primate shared traits, begin Living Primates: primatology

Week 11: 3/31 & 4/2  **Expert Grp Sessn 1: Thurs 4/2**
Text: (preview) Chap 7  AE: Peace Among Primates
Cont. Living primates: primatology, expert grp session & quiz

Week 12: 4/7 & 4/9  **Primate Hmwk assigned**
Text: Chap 7  AE: The Mind of the Chimpanzee
Continue living primates & view primate film

Week 13: 4/14 & 4/16  **Exam #2: 4/16 & Primate Hmwk Due 4/16**
Text: Chap 8  AE: The 2% Difference
Exam Review & Exam

Week 14: 4/21 & 4/23
Text: Chap 9  AE: Top Ten Myths About the Brain (not in AE book, use weblink from last page of syllabus)
Paleoanthropology

Text: Chap 10  AE: The Birth of Childhood
Geologic Time & Primate Evolution

Week 16: 5/5 & 5/7  **Expert Grp Sessn 2: Thurs 5/7**
Text: Chap 11  AE: We Are All Africans (full text article can be found online: Pat Shipman, American Scientist, Nov-Dec 2003, weblink on last pg.)
Skeletal features of bipedalism, expert group session 2 & quiz

Week 17: 5/12 & 5/14
Text:  AE:
Members of our Genus, course wrap-up
**Final Exam: Thurs 5/14: reg. time & place**

**Course grading & Grading Scale:**
Attendance/Class Participation: 5% (50pts)
Primate Hmwk: 5% (50pts)
Group Presentation Project: 15% (150pts)
Exams 1, 2 & Final Exam: 25% each (250 pts each) for a total of 75%
Final Grades will be determined utilizing the following scale, our campus does not issue “+” or “-“ grades
(900 pts) 90% & above: “A” grade
(800-899 pts) 80-89%: “B” grade
(700-799 pts) 70-79%: “C” grade
(600-699 pts) 60-69%: “D” grade
(Below 600 pts) Below 60%= “F” grade

It is your responsibility to keep track of your prospective grade. I retain student exams, thus, when you have the opportunity to view your graded exam, be sure to make note of your score so that you can track your progress in the course. Keep all other graded papers until you have received your final grade. If you need help calculating your prospective grade, make an appointment to see me and I will gladly assist you.

**Extra credit:** Students will have the option of turning in one extra credit write-up assignment, which will be worth approx. 5% of the course grade. Students may either read one of the Annual Editions articles other than the articles assigned for the class, or attend a museum, or view a film pertaining to biological anthropology; a critical response paper (not a film review) must be submitted for any of the options above. The format for the paper is as follows: 1) describe what you saw, 2) incorporate at least 3 concepts or terms learned in class, 3) provide personal analysis of your reaction to the experience. Papers should be typed, 3pgs. long, & double spaced, using 11 or 12 pt. font & standard, reasonable margins, if the paper does not meet this criteria, it will not receive extra credit. The paper should be in your own words, direct paraphrasing from other sources will result in a loss of credit.

If you’d like to choose a film or location not listed below, please obtain prior approval of the instructor. Papers that do not meet these criteria may not be eligible for extra credit points. Book papers will be graded out of 55 points, location visits & article papers out of 50 pts, while film papers will be graded out of 30 pts. Other opportunities to earn bonus points will be announced throughout the term & are considered separate of this extra credit assignment. Extra credit is due by the date of the final exam but may be submitted early. No late extra credit submissions will be accepted.

**Recommended Locations for Museum option:** (Please retain ticket stub or receipt to submit w/ write-up for full credit)
California Science Center or Discovery Science Center
Gibbon Center (Los Angeles)
La Brea Tar Pits
Museum of Natural History
Museum of Tolerance (may be temp. closed due to renovation)
Zoo for Primate Exhibit: LA, Santa Ana or San Diego
Pre-approved Films for Biological/Physical Anthro:
Avatar
12 Monkeys
28 Days Later
2001: A Space Odyssey
A.I. (Artificial Intelligence)
Andromeda Strain
Children of Men
Congo
Chimpanzee (Disney’s)
Contagion
Crash
Equilibrium
Elysium
Gorillas In the Mist
I Am Legend
Jurassic Park (film or books, sequels acceptable)
Mighty Joe Young
Outbreak
Rise of the Planet of the Apes (not Dawn of…)
The Constant Gardener
The Island
Ultraviolet

Books: (Please check eReserves per info below for a more complete list of extra credit resources)
Diamond, Jared. The Third Chimpanzee, or Guns, Germs & Steel
Marks, Jonathan. What It Means to Be 98% Chimpanzee.
Goodall, Jane. Harvest for Hope
Gould, Stephen J. The Mismeasure of Man or The Richness of Life
Graves, Joseph. The Race Myth or other titles by same author.
Washington, Harriet. Medical Apartheid

(To obtain course slides pdf files): LAHC website: click on Library, click on e-Reserves, look for my last name, scroll down to anthro 101:  Login info:
Username: student
Password: lahclibrary311

**Websites for full text of assigned AE articles:**

Evolution in Action:  
http://www.sierracollege.edu/ejournals/jscnhm/v2n2/EvolutionAction.html
Curse & Blessing of the Ghetto:  
http://courses.washington.edu/bioa101/articles/article43.pdf
America’s Science Problem:  
http://www.scientificamerican.com/article/antiscience-beliefs-jeopardize-us-democracy/
Skin Deep:  
http://courses.washington.edu/bioa101/articles/article33.pdf

The Tall & Short of it:  
http://courses.washington.edu/bioa101/articles/article38.pdf

How Real is Race?  
http://karacy.files.wordpress.com/2009/05/how_real_is_race.pdf

Peace Among Primates:  
http://greatergood.berkeley.edu/article/item/peace_among_primates

The Mind of the Chimpanzee:  
https://www.dropbox.com/s/uwahfcmdubfelt6/the%20mind%20of%20the%20chimpanzee.pdf?dl=0

The 2% Difference:  
http://discovermagazine.com/2006/apr/chimp-genome

Top Ten Myths About the Brain:  

The Birth of Childhood:  

We Are All Africans:  
http://weyanoke.org/pdf/WeAreAllAfricans.pdf