

SYLLABUS
ANTH 100 - History and Theory of Physical Anthropology
Anthropology Department, UC Santa Cruz
Summer 2018

Lecture days/hours: MW 1:00-4:30
Lecture location: Soc Sci 2, Room 179

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| Instructor: | Jay S. Reti, Ph.D. | Teaching Assistant: | Brian Walter |
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| Office: | SS1 Room 409 | Office: | SS1 Room 313 |
| Office Hours: | Wednesday, 4:30-5:30 | Office Hours: | Monday, 12:00-1:00 |

COURSE DESCRIPTION:

This course is designed to provide the historical and theoretical overview of physical (biological) anthropology. Through lectures, weekly readings, class discussions, and assignments, students will learn about the emergence of the discipline and the key scholars who have contributed to its development since the 17th Century. Course topics will include the development of evolutionary theory and the modern synthesis, the advent of evolutionary developmental biology, reactions against rising adaptationist conclusions, and modern applications of biological anthropological theory. These and other key topics will help students understand how physical anthropology has emerged as a major discipline within the social sciences.

COURSE OBJECTIVES:

In this course, students will be exposed to a wide array of academic literature concerning the history and theory of biological anthropology. A successful student will have working knowledge of the key historic texts and ideas that have contributed to our understanding of evolutionary principles today. Course assignments (papers and oral arguments) will allow students to actively engage with the material and demonstrate their broader understanding of how theoretical understanding of evolution has changed through time.

REQUIRED TEXT:

This course will be using an assortment of research articles. These articles are available on the course eCommons website in the "Resources" folder. Students will also be required to read excerpts of Darwin's "On the Origin of Species" over the course of the class. Students may purchase a paper copy of the book or access the .pdf version of the book available on the eCommons course website.

COURSE REQUIREMENTS:

Your grade will be determined via four components. The first component is worth 25% of your overall grade and consists of weekly assignments related to the material we will be covering. These assignments will be in the form of in-class responses to topics we will discuss as a group or that you will discuss in small groups. The second component is the midterm exam, which will consist of several essay questions. The midterm is worth 25% of your overall grade. The third component is the final exam, which will be a take-home exam in which you will respond to several prompts in essay form. The final exam will be due on the final day of class and is worth 25% of your overall grade. The last component of your grade is a research project, which is worth the final 25% of your grade. The research assignment is included on the last page of this syllabus, for your reference.

ATTENDANCE POLICY:

Students are expected to attend all classes. If students must miss class, they are required to inform me prior to the day of class, in writing, and provide documented reasons for their absence. In these excused absence cases, students may visit my office hours to discuss materials missed during their absence. All students are encouraged to come to office hours to discuss any questions they have of the material covered in lectures and readings.

SCHOLARSHIP AND CLASS ETIQUETTE:

All cases of suspected plagiarism and cheating will be reported to the academic deans. I will discuss the issue of plagiarism during lecture, but please visit www.plagiarism.org for more information. **Please turn off cell phones while in class and respect the learning environment for other students, including only taking notes on open laptops.**

COURSE SCHEDULE

| Date | Topic and Readings |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| June 25 | <ol style="list-style-type: none">1. Introduction to the course2. Pre-Darwinian concepts of humans, science, evolution<ul style="list-style-type: none">- Nott 1843 – Mullato as a hybrid- Farber 1972 – Buffon and the concept of species |
| | <p>Reading Response: Before reading Farber’s article, explain your current understanding of how Darwin changed the scientific world. Read Farber’s article about the Comte du Buffon and explain Buffon’s complex ideas regarding evolution. How does Buffon define the concept of “species”? How is his understanding of what represents a “species” different from how we define the concept of a species today?</p> |
| June 27 | <p>Lamarck and What Darwin didn’t know</p> <ul style="list-style-type: none">- Darwin 1859 – Preface and Chapter 1- Mayr 1972 – Lamarck Revisited |
| | <p>Reading Response: Define “Lamarckian Evolution.” How does Lamarck’s view of the evolutionary process differ from Darwin (this should be an explanation in some detail!)? What is the major topic that Darwin covers in the beginning of <i>On the Origin of Species</i>? Why does Darwin begin with such examples of evolution? In other words, how does beginning the book this way strengthen Darwin’s arguments for natural selection?</p> |
| July 2 | <p>Response to Darwinian evolution: Owen and Huxley</p> <ul style="list-style-type: none">- Owen 1860 – Review of <i>On the Origin of Species</i>- Huxley 1887 – On the reception of “The Origin of Species” |
| | <p>Reading Response: Compare Huxley’s retrospective look at Darwin’s publication of <i>On the Origin of Species</i> and compare it with Owen’s initial review. How did perspectives change in the 27 years between these publications? Outline some specific examples from Huxley that counter the arguments made by Owen. Your responses should select several examples and be specific about them.</p> |
| July 4 | NO CLASS - HOLIDAY |

July 9

Darwin's immediate impact, De Vries, Fisher, Haeckel
- Bowler 1977 – De Vries, Morgan, and Mutation Theory
- Stauffer 1957 – Haeckel, Darwin, and Ecology

Reading Response: 1. Describe the differences between how Hugo De Vries and Thomas Hunt Morgan view the role that mutation plays in the evolutionary process. **2.** Ernst Haeckel made many contributions to furthering evidence for Darwinian evolution. Explain how the introduction of “ecology” changed the way that biologists viewed natural selection.

July 11

MIDTERM EXAM (BRING BLUE BOOK)

July 16

1. Mendel and the modern synthesis
- Mayr and Provine 1981
2. Rise of adaptationists
- Barash 1976 - Bluebirds

Reading Response: What is the “modern synthesis”? How and why did it occur and what major milestones did it mark for evolutionary theory?

July 18

1. Revolt against adaptationists
- Gould and Lewontin (1979) – The Spandrels of San Marcos
2. Socio-Biology
- Dawkins – Excerpt from “The Selfish Gene”

Reading Response: 1. What does the term “Adaptationist” refer to? Would Gould and Lewontin describe themselves as “adaptationists?” Why or why not? **2.** What does the concept of the “selfish gene” refer to? How is this interpretation different from a standard interpretation of natural selection?

July 23

1. Sexual Selection
- Andersson 1994 – Introduction to sexual selection
2. Modern public contention: creationism, ID, evolution
- Excerpts from “Of Pandas and People”

Reading Response: 1. Sexual selection can operate in many different ways. Discuss the nuances of how the *process* of sexual selection can influence the ways in which organisms adapt. **2.** Discuss the positives and negatives of how this high school textbook addresses the concept of natural selection. What does it do well? What does it do poorly? Discuss how you were introduced to the concept of evolution in school. What grade? In what detail? What do you think that we, as a society, can do to make ourselves more scientifically literate (for evolution specifically, but for biology more broadly)?

July 25

FINAL EXAM (DUE BY MIDNIGHT TONIGHT)

Theory of Physical Anthropology (ANTH 100)
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Course Paper Assignment: General Instructions

For this paper assignment, please conduct research of a major figure concerning evolutionary theory in biology or biological anthropology. During our second class we will watch a documentary that introduces you to many different figures in evolutionary theory, but a few of the prominent ones are below. Your research should NOT BE A BIOGRAPHY, but rather focus on the research of the individual you select and how their research contributed to evolutionary theory. This may be in a positive light or a negative light, but you need to explain what evolutionary theory was thought to be during their time of research and how their research contributed to the understanding of that theory during their lifetime (and since they died, if applicable).

Research Topics (many others exist as well!):

1. Comte du Buffon
2. Carolus Linnaeus
3. Jean-Baptist Lamarck
4. Charles Darwin
5. Charles Lyell
6. Richard Owen
7. Ernst Haeckle
8. Thomas Henry Huxley
9. Gregor Mendel
10. Thomas Hunt Morgan
11. Hugo de Vries
12. Julian Huxley
13. Ronald Fisher
14. Ernst Mayr
15. George G. Simpson
16. Stephen J. Gould
17. Edward O. Wilson

Final Paper: DUE JULY 25 (ONLINE: CANVAS ASSIGNMENTS)

- 8-10 pages, double-spaced, 12-point font, Times New Roman, 1" margins
- Parenthetical in-text citations (APA style guide, see Purdue OWL website for info)
- APA formatted reference section