BUTTE COLLEGE
COURSE OUTLINE

I. **CATALOG DESCRIPTION**

ANTH 2 - Physical Anthropology **3 Unit(s)**

Prerequisite(s): NONE
Recommended Prep: Reading Level IV; English Level IV; Math Level III
Transfer Status: CSU/UC
51 hours Lecture

This course introduces the concepts, methods of inquiry, and scientific explanations for biological evolution and their application to the human species. Issues and topics will include, but are not limited to, genetics, evolutionary theory, human variation and biocultural adaptations, comparative primate anatomy and behavior, and the fossil evidence for human evolution. The scientific method serves as foundation of the course. (C-ID ANTH 110).

II. **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

A. Describe the scientific process as a methodology for understanding the natural world.
B. Define the scope of anthropology and discuss the role of biological anthropology within the discipline.
C. Identify the main contributors to the development of evolutionary theory.
D. Explain the basic principles of Mendelian, molecular and population genetics.
E. Evaluate how the forces of evolution produce genetic and phenotypic change over time.
F. Demonstrate an understanding of classification, morphology and behavior of living primates.
G. Summarize methods used in interpreting the fossil record, including dating techniques.
H. Recognize the major groups of hominin fossils and describe alternate phylogenies for human evolution.
I. Identify the biological and cultural factors responsible for human variation.

III. **COURSE CONTENT**

A. **Unit Titles/Suggested Time Schedule**

Lecture

Topics	Hours
1. Nature of scientific inquiry and the scientific method	5.50
2. Anthropological perspective	5.00
3. History and development of biological evolutionary thought	6.00
4. Molecular, Mendelian and population genetics	6.00
5. Mechanisms of evolution	5.50
6. Comparative primate taxonomy, anatomy and behavior	5.50
7. The nature of the fossil record including dating techniques	5.50
8. Fossil and genetic evidence of human evolution	6.00
9. Biocultural adaptations and modern human variation	6.00
Total Hours	51.00

IV. METHODS OF INSTRUCTION

A. Lecture
B. Collaborative Group Work
C. Homework: Students are required to complete two hours of outside-of-class homework for each hour of lecture
D. Discussion
E. Multimedia Presentations
F. Writing assignments. Students will be required to write 2,500 words or more through formal research based writing assignments.

V. METHODS OF EVALUATION

A. Exams/Tests
B. Quizzes
C. Evaluation of short written assignments
D. Formal research papers (2,500 word minimum)

VI. EXAMPLES OF ASSIGNMENTS

A. Reading Assignments
   1. Read the article from the Annual Edition: Physical Anthropology that focuses on the "Lumper/Splitter" debate. Be prepared to discuss this debate in light of how these two perspectives influence taxonomic categorization of early human groups.
   2. Read the section in Chapter 10 of your text book (Essentials of Physical Anthropology) that deals with the Neanderthal controversy. Be prepared to discuss this controversy in light of recent lines of evidence, as outlined in your text (e.g. DNA, blood type, and physical morphology). Be prepared to discuss in class how these new lines of evidence have changed our views of Neanderthals.

B. Writing Assignments
   1. Write a short essay (300 words) summarizing different views on evolutionary process. Focus your essay on the "gradualist vs punctuated equilibrium" debate. Cite Stephen Jay Gould and Richard Dawkins. Present your paper in class.
   2. Write a short essay on the emergence of bipedalism among early members of the human line(s). Focus on the articles by C. Owen Lovejoy and Richard Leakey.

C. Out-of-Class Assignments
   1. Visit the Human Identification Lab at CSU Chico. Be prepared to discuss this experience in class. Keep in mind the following questions: what is the basic function of this lab; what methods are used in carrying out responsibilities associated with human identification; were there any cases being worked on while you were there (if so describe the case[s])?
   2. Attend this week's Anthropology Forum at CSU Chico—a talk given by Dr. Barbara Smuts on Baboon social bonding. Be prepared to discuss in class the main ideas of Dr. Smuts' talk.

VII. RECOMMENDED MATERIALS OF INSTRUCTION

Textbooks:

A. Robert Jurmain, Harry Nelson, Lynn Kilgore and Wenda Trevathan. The Essentials of Physical Anthropology. 7th Edition. Wadsworth , 2009.
B. Elvio Angeloni. The Annual Review: Physical Anthropology. Dushkin Publishing Group, 2009.

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