

Anthropology 1

Introduction to Biological Anthropology

3 units; 3 hours lecture

Recommended Preparation: English 1 or eligibility for English 1A or qualification by appropriate assessment.

Degree applicable Transfer CSU, UC

This course explores and emphasizes the evolution and biological diversity of the human species and our closest living relatives, the non-human primates. Topics include genetics, mechanisms of evolutionary change, primate behavior and ecology, human biological variation and human evolutionary history through examination of the fossil record.

Note: Students may take either Anthropology 1 or Anthropology 1H. Duplicate credit will not be awarded.

Course Objectives:

1. Demonstrate an understanding of the concept of the scientific method and its significance to science.
 - Objective Exams
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.
 - Essay exams
3. Identify and describe the processes by which genetic information is transmitted from one generation to the next.
 - Objective Exams
4. Identify and discuss the various components of the DNA molecule and the process of protein synthesis.
 - Objective Exams
5. Explain and assess the mechanisms of evolutionary change and explain how each one contributes to the evolutionary process.
 - Essay exams
6. Contrast point and chromosomal mutations and discuss the significance of point mutations to evolution.
 - Objective Exams
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.
 - Objective Exams
8. Contrast the major forms of primate social structure and describe their relationship to the primate species' ecology.
 - Essay exams
9. Evaluate the benefits of bipedalism in reference to the particular environment in which most hominin evolution occurred.
 - Essay exams
10. Compare and contrast the skull characteristics of *Australopithecus africanus*, *Australopithecus* (or *Paranthropus*) *boisei*, and *Homo habilis* in relation to the particular diet of each.

- Essay exams
11. Contrast the anatomical characteristics of Homo habilis and Homo erectus, and analyze those contrasts in reference to their respective environments and subsistence strategies.
 - Objective Exams
 12. Analyze the characteristics of Homo neanderthalensis in reference to the environment in which this hominin lived.
 - Objective Exams
 13. Evaluate the models that account for the origin of Homo sapiens, outlining the major criteria and evidence supporting each.
 - Objective Exams
 14. 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.
 - Essay exams
 15. Explain the difference between physiological adjustments and adaptations and explain skin color and body forms adaptations to particular environments.
 - Essay exam

Student Learning Outcomes (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.
2. Primate Arboreal Adaptation
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.
3. Human Evolution
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. Neanderthals, H. erectus, H. habilis).

ADA Statement:

El Camino College is committed to providing educational accommodations for students with disabilities upon the timely request by the student to the instructor. A student with a disability, who would like to request an academic accommodation, is responsible for identifying herself/himself to the instructor and to the Special Resource Center. To make arrangements for academic accommodations, contact the Special Resource Center.

Student Code of Conduct

<https://www.elcamino.edu/administration/board/2019-policies/AP%205500%20Student%20Conduct%20.pdf>

Student Rights and Grievances Procedure 5530

<https://www.elcamino.edu/administration/board/boarddocs/AP%205530%20STUDENT%20%20RIGHTS%20AND%20GRIEVANCES.pdf>