

**ANTHRO 1 Course Outline as of Spring 2022****CATALOG INFORMATION**

Dept and Nbr: ANTHRO 1 Title: BIOLOGICAL ANTHROPOLOGY

Full Title: Biological Anthropology

Last Reviewed: 4/25/2022

| Units   |      | Course Hours per Week |      | Nbr of Weeks | Course Hours Total |       |
|---------|------|-----------------------|------|--------------|--------------------|-------|
| Maximum | 3.00 | Lecture Scheduled     | 3.00 | 17.5         | Lecture Scheduled  | 52.50 |
| Minimum | 3.00 | Lab Scheduled         | 0    | 6            | Lab Scheduled      | 0     |
|         |      | Contact DHR           | 0    |              | Contact DHR        | 0     |
|         |      | Contact Total         | 3.00 |              | Contact Total      | 52.50 |
|         |      | Non-contact DHR       | 0    |              | Non-contact DHR    | 0     |

Total Out of Class Hours: 105.00

Total Student Learning Hours: 157.50

Title 5 Category: AA Degree Applicable

Grading: Grade or P/NP

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

**Catalog Description:**

The study of human evolution and humans as organisms, with an emphasis on a biocultural approach. This is an introductory, broad survey course that covers the history and modern synthesis of evolutionary theory; studies primate behavior and comparative anatomy; examines dating techniques and the fossil record; and critically assesses past and future human/environmental relationships including issues concerning future adaptation.

**Prerequisites/Corequisites:****Recommended Preparation:**

Eligibility for ENGL 1A

**Limits on Enrollment:****Schedule of Classes Information:**

Description: The study of human evolution and humans as organisms, with an emphasis on a biocultural approach. This is an introductory, broad survey course that covers the history and modern synthesis of evolutionary theory; studies primate behavior and comparative anatomy; examines dating techniques and the fossil record; and critically assesses past and future

human/environmental relationships including issues concerning future adaptation. (Grade or P/NP)

Prerequisites/Corequisites:

Recommended: Eligibility for ENGL 1A

Limits on Enrollment:

Transfer Credit: CSU;UC.

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

|                   |             |   |                   |                  |
|-------------------|-------------|---|-------------------|------------------|
| <b>AS Degree:</b> | <b>Area</b> |   | <b>Effective:</b> | <b>Inactive:</b> |
|                   | C           | Natural Sciences                              | Fall 1981         |                  |
|                   | H           | Global Perspective and Environmental Literacy |                   |                  |

|                |                      |              |                   |                  |
|----------------|----------------------|--------------|-------------------|------------------|
| <b>CSU GE:</b> | <b>Transfer Area</b> |              | <b>Effective:</b> | <b>Inactive:</b> |
|                | B2                   | Life Science | Fall 1981         |                  |

|               |                      |                     |                   |                  |
|---------------|----------------------|---------------------|-------------------|------------------|
| <b>IGETC:</b> | <b>Transfer Area</b> |                     | <b>Effective:</b> | <b>Inactive:</b> |
|               | 5B                   | Biological Sciences | Fall 1981         |                  |

|                      |              |                   |           |                  |
|----------------------|--------------|-------------------|-----------|------------------|
| <b>CSU Transfer:</b> | Transferable | <b>Effective:</b> | Fall 1981 | <b>Inactive:</b> |
|----------------------|--------------|-------------------|-----------|------------------|

|                     |              |                   |           |                  |
|---------------------|--------------|-------------------|-----------|------------------|
| <b>UC Transfer:</b> | Transferable | <b>Effective:</b> | Fall 1981 | <b>Inactive:</b> |
|---------------------|--------------|-------------------|-----------|------------------|

### **CID:**

|                          |   |
|--------------------------|---|
| CID Descriptor: ANTH 110 | Introduction to Biological Anthropology |
|--------------------------|---|

|                            |         |
|----------------------------|---------|
| SRJC Equivalent Course(s): | ANTHRO1 |
|----------------------------|---------|

### **Certificate/Major Applicable:**

Major Applicable Course

## **COURSE CONTENT**

### **Student Learning Outcomes:**

At the conclusion of this course, the student should be able to:

1. Discuss the fundamental concepts of evolutionary theory, including the various mechanisms of evolution, including natural selection, genetic mutation, gene flow, genetic drift and emerging studies of epi-genetic influences.
2. Apply anthropological vocabulary and concepts to evaluate alternate phylogenies of ancient primates within a framework of evolutionary theory.
3. Analyze contemporary issues of primate evolution and survival; human health and medicine; human impacts on environments and future primate adaptation.

### **Objectives:**

Upon completion of this course, students will be able to:

1. Demonstrate knowledge of the terms, concepts and research methodologies used in the study of human evolution and diversity.
2. Discuss the developmental history of evolutionary theory, including the ability to convey basic knowledge of the principles of human genetics at the cellular and molecular level of DNA structure and replication.
3. Identify the major forces of evolution.

4. Compare different classification systems, and describe humankind within the contemporary primate order (e.g., classic taxonomy, cladistics, phylogeny).
5. Describe the adaptive relationships of primates with their environmental world (e.g., anatomy, social behavior, subsistence, culture), including the ability to discuss the issues surrounding the survival of non-human primates today.
6. Demonstrate a basic knowledge of fossil specimens relied upon to construct the various phylogenies offered for primate ancestry, with particular emphasis on the debates of hominin ancestry.
7. Recognize and discuss the environmental relationships (climate, geography, and other environmental determinants) of biological and adaptive mechanisms in ancestral populations that gave rise to archaic and modern human diversity.
8. Assess the ways in which cultural aspects of the human species intersect with biological evolutionary processes that may impact our potential evolutionary trajectories.
9. Evaluate the ways in which humans have impacted the natural environment and how that impact now challenges the future survival of humankind.

### **Topics and Scope:**

- I. Introduction to Anthropology as a scientific discipline and to the methods of scientific inquiry
- II. The development of modern evolutionary theory
- III. Natural Selection and other forces of evolution such as mutation, genetic drift, gene flow as mechanisms that may give rise to speciation
- IV. The structure of DNA as heritable material, including principles of replication and reproduction at the cellular and molecular levels
- V. Modern populations, human diversity
- VI. Bioethics and genetic innovation
- VII. Primate taxonomy and skeletal anatomy
- VIII. The social behavior of non-human primates and the environmental challenges they face today
- IX. Geologic time scales and chronometric dating techniques to assess deep time.
- X. Early primate evolution: The first primates
- XI. Early hominid forms in Africa and the origins of culture(s) as an environmental adaptive mechanism
- XII. Names, dates, cranial capacities, and morphological and genetic changes in the human fossil records over time
- XIII. Evolution and expansion of *Homo erectus* from Africa into Asia and Europe
  - A. The continuing evolution of Lower Paleolithic culture as an adaptation to expanding environments.
  - B. Impact of hominids on early megafauna
- XIV. Evolution and expansion of *Homo sapiens* in Africa, Asia, and Europe
  - A. The Neanderthals and other archaic forms
  - B. Middle Paleolithic cultures maximizing global environmental niches
- XV. Origin and expansion of anatomically modern *Homo sapiens* through Africa, Europe, Asia, Australia, and the Americas
  - A. Upper Paleolithic cultures maximizing global environmental niches
  - B. Impact of hominids on contemporary environments
- XVI. The relationship among human biology, culture, and the spread of disease
- XVII. Summary of global environmental impact of the human species and challenges for the survival of human beings in the twenty-first century

### **Assignment:**

1. For homework, students will read and study assignments in textbooks for each class meeting, approximately 10-30 pages per week.
2. Students will write one or more papers, ranging from 750 – 1500 words each, on assigned topics, including book and article response papers, and critical-thought essays.
3. Students will complete 2-4 exams during the semester, which can include multiple choice questions, true/false, completion, map identification, and short answer and essay questions.
4. Optional assignments may include assigned map tests, other types of homework, attendance, and in-class participation.

### Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Written homework, book responses, and reaction papers

Writing  
30 - 40%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

None

Problem solving  
0 - 0%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None

Skill Demonstrations  
0 - 0%

**Exams:** All forms of formal testing, other than skill performance exams.

Multiple choice, true/false, completion, short answer, map tests

Exams  
55 - 70%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

Attendance and in-class participation

Other Category  
0 - 5%

### Representative Textbooks and Materials:

Core Concepts in Biological Anthropology. Fuentes, Agustin: McGraw Hill, Boston: 2007 (Classic)

Our Origins: Discovering Physical Anthropology. Larsen, Clark. W.W. Norton & Company: 2015

Transformations: Readings in Evolution, Hominins, and the Environment, Sixth Edition. Smith, Dianne and Slovak, Nicole (Ed). Hayden-McNeil Publishing Inc., Plymouth: 2008 (Classic)