

The Department of Modern Languages, Philosophy & Socio-Cultural Studies

Proposal of Course Modification

A. Protocol

Course Name: Fundamentals of Biological Anthropology

Course Number: ANT 232

Credits: 3

Prerequisites: none

Maximum Class Size (face-to-face): 30

Maximum Class Side (online): 50

B. Objectives of the Course

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

- Illustrate human interconnections with life on this planet, including the biological basis for modern human variation
- Evaluate science and the scientific method, as it applies to biological anthropology and evolutionary studies
- Examine the fossil history of humanity and the role of biocultural adaptation
- Recognize the role of synthesis and model building in the study of human evolution
- Assess the complex biological pathways that lead to modern human behavior and social organization

C. Catalog Description

A course for both majors and non-majors to introduce students to the field of biological anthropology, including the study of evolutionary theory, modern human populations, the behavior and ecology of nonhuman primates, and the primate (human and non-human) fossil record. Special emphasis will be directed toward human form and behavior as a result of the complex interplay of biology and culture acting over millions of years of evolutionary change. Three hours weekly. (3 crs.)

D. Outline of the Course

- I. Principles of Evolutionary Thought
 - A. History of Evolutionary Theory
 - B. Biological Basis of Life
 - C. Principles of Inheritance
 - D. Population Genetics
 - E. Hardy-Weinberg Equilibrium
 - F. Macroevolution

- II. Non-human Primates as Models for Human Evolution
 - A. What is a Primate?
 - B. Overview of the Living Primates
 - C. Studying Nonhuman Primates
 - D. Primate Adaptations (diet)
 - E. Primate Adaptations (locomotion)
 - F. Primate Sociality (grouping patterns)
 - G. Primate Sociality (reproductive strategies)
 - H. Primate Conservation

- III. Pathways of Human Evolution
 - A. Fossil Evidence and its Interpretation
 - B. Primate Evolution
 - C. What is a Hominin?
 - D. Early Hominids
 - E. *Australopithecus* and *Paranthropus*
 - F. Early *Homo* (*Homo habilis* & *H. rudolfensis*)
 - G. Middle *Homo* (*Homo erectus* & *H. ergaster*)
 - H. Late *Homo* (*Homo rudolfensis*, *H. Neanderthalensis* & *H. sapiens*)

- IV. Modern Human Studies
 - A. Modern Human Migration Patterns
 - B. Human Variation and Adaptation
 - C. Basics of Skeletal Biology
 - D. Forensic Anthropology
 - E. The Future of Biological Anthropology

E. Teaching Methodology

Face-to-Face: Instructors will use a combination of lecture, class discussion and hands-on laboratory exercises to engage the students and aid in the acquisition of knowledge. Lectures will address the topics listed above, and laboratory sessions will be integrated weekly to provide familiarity with the concepts and species being discussed. Throughout the semester, critical reviews of the primary literature will require students to explore and discuss recent findings in the field and field trips to the Pittsburgh Zoo and Carnegie Museum of Natural History will offer students the opportunity to strengthen their understanding of the course material and apply the skills learned in the classroom. A combination of lecture exams, written article reviews, and laboratory assignments will serve as assessment tools in this course.

Online: The course will be delivered in a manner consistent with the rubric and standards of the Quality Matters program. Content will be conveyed through a combination of annotated lectures, video clips, assigned readings and guided exercises, including the study of fossil specimens that have been digitized and are available online. Students will interact with each other and the instructor through small group assignments, assignment feedback, the use of chat rooms and discussion boards and project presentations.

F. Text(s). Suggestions include:

- Stanford, C., Allen, J.S. & Antón, S.C. (2010). *Exploring Biological Anthropology: The Essentials*, 2nd Edition. Upper Saddle River, NJ: Prentice Hall.
- Whitehead, P.F., Sacco, W.K. & Hochgraf, S.B. (2005) *A Photographic Atlas for Physical Anthropology*, Brief Edition. Englewood, CO: Morton.
- Zihlman, A. (2000). *The Human Evolution Coloring Book*, 2nd Edition. Napa, CA: Harper Collins.
- Additionally, students will be required to explore professional journals in the discipline, to read and critique recently published research.

G. Assessment Activities

Face-to-Face: The course grade will be constructed from the scores that students receive on in-class tests, the final exam, in-class laboratory exercises and homework assignments, article/book reviews, and class participation.

Online: The course grade will be constructed from the scores students receive on quizzes, article/book reviews, simulated laboratory exercises and other course assignments, and chat/discussion board contributions.

H. Accommodations for Students with Disabilities

Students with disabilities:

- Reserve the right to decide when to self-identify and when to request accommodations
- Will register with the Office of Students with Disabilities (OSD) each semester to receive accommodations
- Might be required to communicate with faculty for accommodations, which specifically involve the faculty.
- Will present the OSD Accommodation Approval Notice to faculty when requesting accommodations

Requests for approval for reasonable accommodations should be directed to OSD. Approved accommodations will be recorded on the OSD Accommodation Approval notice and provided to the student. Students are expected to adhere to the OSD procedures for self-identifying, providing documentation and requesting accommodations in a timely manner.

Office for Students with Disabilities:

- Location: Azorsky Building – Room 105
- Phone: (724) 938-5781
- Fax: (724) 938-4599
- Email: osdmail@calu.edu
- Web Site: www.calu.edu (search “disability”)

I. Supportive Instruction Materials

On Campus:

- Available at the Manderino Library:
 - American Journal of Physical Anthropology
 - Yearbook of Physical Anthropology
 - American Journal of Primatology (online)
 - Primates (online)
- Available through the Departments of Biological and Environmental Sciences and the Department of Modern Languages, Philosophy & Socio-Cultural Studies:
 - Assorted skeletal and cast materials for living and extinct primate (human and non-human) species

Electronic:

- Available online, through the Manderino Library:
 - American Journal of Primatology
 - Primate Conservation
 - Primates
- <http://www.becominghuman.org/>
- <http://www.boneclones.com/catalog-fossil-hominids.htm>
- <http://www.eskeletons.org/>
- <http://evolution.berkeley.edu/>
- <http://learn.genetics.utah.edu/>
- <http://newswatch.nationalgeographic.com/blog/rising-star-expedition/>

Additional Information for Course Proposals

J. Proposed Instructors:

Instructors from the Biology Program, Department of Biological and Environmental Sciences, and the Anthropology Program, Department of Modern Languages, Philosophy and Socio-Cultural Studies with the requisite background in Biological Anthropology are eligible to teach this course.

K. Rationale for the Course

The domains of biology and anthropology overlap in the discipline of biological anthropology. Biological anthropology is interested in studying humans as biological beings, subject to the evolutionary and environmental pressures of the world in which we live. By providing students with a course on the foundations of the discipline, we provide CalU students with an opportunity to explore what it means to be human in a new way. Any student who enrolls in this course will gain a more detailed understanding of the pressures that have shaped human evolution, how closely human form and behavior are linked to the environment in which we live, and the biological basis for modern human variation (including concepts such as gender and “racial” differences).

This course also provides added benefits to our Anthropology majors. Anthropology majors, who are primarily trained in forensics and archaeology, will gain a deeper perspective on our evolutionary beginnings and the ways that studying nonhuman primates can help inform us about the roots of human culture and behavior. In addition to ANT 100 (Introduction to Anthropology), this course will provide students with a solid understanding of the diversity of research interests and perspectives found within the domain of anthropology.

L. Specialized Equipment or Supplies Needed

This course can be offered using the existing materials available through the Manderino Library and our departmental collections. However, student success in the class would be improved through augmentation of our existing collections with subscriptions to the *Journal of Human Evolution* and the *International Journal of Primatology*.

M. Answer the following questions using complete sentences:

1. Does the course require additional human resources?

This course does not require any additional human resources.

2. Does the course require additional physical resources?

This course does not require any additional physical resources.

3. Does the course change the requirements in any particular major?

This course does not require any changes to a particular major.

4. Does the course replace an existing course?

This proposal updates the existing ANT 232 course syllabus to include an online teaching option.

5. How often will the course be taught?

This course will be offered every other spring semester (face-to-face) and during summer/winter sessions (online), based on departmental needs.

6. Does the course duplicate an existing course in another Department or College?

This course does not duplicate an existing course, ANT 232 will continue to be cross-listed with BIO 232 when offered in a face-to-face format.

N. Statements of support from the department chairs

Please see attached letters. Due to the overlapping course material, this course would be taught collaboratively by faculty from the Department of Biological and Environmental Sciences and the Department of Modern Languages, Philosophy & Socio-Cultural Studies.

O. General Education Relevance

This course has been approved for inclusion in the general education curriculum, as a social science course.

P. Approval Forms

See attached.