Effective Implementation date: Spring 2018, 201830

Course Prefix and Number: ANT 111
Course Title: Bio Anthropology W/Lab: SC1
Course Credits: 4
Course Description: Focuses on the study of the human species and related organisms, and examines principles of genetics, evolution, anatomy, classification, and ecology, including a survey of human variation and adaptation, living primate biology and behavior, and primate and human fossil evolutionary history.

Guaranteed Transfer (GT) Pathways Course Statement:
The Colorado Commission on Higher Education has approved ANT111 for inclusion in the Guaranteed Transfer (GT) Pathways program in the GT- SC1 category. For transferring students, successful completion with a minimum C– grade guarantees transfer and application of credit in this GT Pathways category. For more information on the GT Pathways program, go to https://highered.colorado.gov/academics/transfers/gtpathways/curriculum.html.

GT-SC1: NATURAL & PHYSICAL SCIENCES CONTENT CRITERIA
Students should be able to:

1. The lecture content of a GT Pathways science course (GT-SC1):
    a. Develop foundational knowledge in specific field(s) of science.
    b. Develop an understanding of the nature and process of science.
    c. Demonstrate the ability to use scientific methodologies.
    d. Examine quantitative approaches to study natural phenomena.

2. The laboratory (either a combined lecture and laboratory, or a separate laboratory tied to a science lecture course) content of a GT Pathways science course (GT-SC1):
    a. Perform hands-on activities with demonstration and simulation components playing a secondary role.
    b. Engage in inquiry-based activities.
    c. Demonstrate the ability to use the scientific method.
    d. Obtain and interpret data, and communicate the results of inquiry.
    e. Demonstrate proper technique and safe practices.

GT-SC1 COMPETENCIES & STUDENT LEARNING OUTCOMES

Competency: Inquiry & Analysis:
Students should be able to:

4. **Select or Develop a Design Process**
    a. Select or develop elements of the methodology or theoretical framework to solve problems in a given discipline.
5. **Analyze and Interpret Evidence**
    a. Examine evidence to identify patterns, differences, similarities, limitations, and/or implications related to the focus.
    b. Utilize multiple representations to interpret the data.
6. **Draw Conclusions**
    a. State a conclusion based on findings.

Competency: Quantitative Literacy:
Students should be able to:

1. Interpret Information
    a. Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).
2. Represent Information
    a. Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words).

REQUIRED COURSE LEARNING OUTCOMES

1. Utilize terminology, facts, methodologies, and concepts related to anthropology, evolution, classification, and ecology.
2. Employ the scientific method of inquiry using current/classic research, case study exploration, or formulating/testing hypotheses, analyzing results, and deriving conclusions.
3. Analyze and apply the learned scientific and anthropological concepts to interpret and draw conclusions in new situations in both laboratory and in lecture.
4. Distinguish between the inter-related branches of anthropology and how these combine to study humans and our biological relatives.
5. Explain the basic principles of genetics and evolution, as they relate to the biological development of the human species and modern biological variation in the human species.
6. Identify the principles of the classification of biological organisms.
7. Evaluate the important scientific explanations regarding the biological origins and development of primate and human species and the fossil discoveries on which they are based.
8. Communicate scientific information clearly and logically.
9. Demonstrate the ability to collect and analyze data, as well as interpret and represent data, in formats such as graphs, tables, or charts using contemporary equipment and technology.

REQUIRED TOPICAL OUTLINE

I. The Nature of the Discipline
    a. The fields of anthropology
    b. Scientific methodology
    c. Unifying concepts of anthropology
    d. Forensic applications of biological anthropology
II. Principles of Inheritance and Evolution
    a. Basic genetics and heredity
    b. Evolutionary theory and forces
    c. Natural selection
    d. Speciation
    e. Population genetics

III. Classification
    a. Taxonomy and evolutionary relationships
    b. Comparative anatomy
    c. Osteology
IV. The Fossil Record
    a. Basic geological principles
    b. Primate and hominin origins
    c. Early hominins
    d. Recent hominins
    e. Homo sapiens
V. Human Variation
    a. Classification systems
    b. Polymorphisms
    c. Biological adaptations
VI. Ecology
    a. Primate and human behavior
    b. Environmental influence on adaptation