UC 12123 12F

# CBM003 ADD/CHANGE FORM

| ☒ Undergraduate Council | or | Graduate/Professional Studies Council |
|---|---|---|
| ☐ New Course ☒ Course Change | | ☐ New Course ☐ Course Change |
| Core Category: Soc Behv Sci Effective Fall 2014 | | Effective Fall 2014 |

1. Department: CCS College: CLASS
2. Faculty Contact Person: Janis Hutchinson Telephone: _____ Email: jhutchinson@uh.edu
3. Course Information on New/Revised course:
   - Instructional Area / Course Number / Long Course Title:
     ANTH / 2301 / Introduction to Physical Anthropology
   - Instructional Area / Course Number / Short Course Title (30 characters max.)
     ANTH / 2301 / INTRODUCTION TO PHYSICAL ANTHR
   - SCH: 3.00 Level: SO CIP Code: 45.0202.00 01 Lect Hrs: 3 Lab Hrs: 0

RECEIVED OCT 12 2012

4. Justification for adding/changing course: **To meet core curriculum requirements**
5. Was the proposed/revised course previously offered as a special topics course? ☐ Yes ☒ No
   If Yes, please complete:
   - Instructional Area / Course Number / Long Course Title:
     ____ / ____ / _____
   - Course ID: _____ Effective Date (currently active row): _____
6. Authorized Degree Program(s): BA/BS
   - Does this course affect major/minor requirements in the College/Department? ☐ Yes ☒ No
   - Does this course affect major/minor requirements in other Colleges/Departments? ☐ Yes ☒ No
   - Can the course be repeated for credit? ☐ Yes ☒ No (if yes, include in course description)
7. Grade Option: Letter (A, B, C …) Instruction Type: lecture ONLY (Note: Lect/Lab info. must match item 3, above.)
8. If this form involves a change to an existing course, please obtain the following information from the course inventory: Instructional Area / Course Number / Long Course Title
   ANTH / 2301 / Introduction to Physical Anthropology
   - Course ID: 292329 Effective Date (currently active row): 2003
9. Proposed Catalog Description: (If there are no prerequisites, type in "none".)
   Cr: 3. (3-0). Prerequisites: concurrent enrollment in or completion of ENGL 1303 or equivalent.
   Description (30 words max.): Physical anthropology emphasizing origins and biological diversity of human populations.
10. Dean's Signature: _____ Date: 10/11/12

    Print/Type Name: Sarah Fishman

# REQUEST FOR COURSES IN THE CORE CURRICULUM

Originating Department or College: Comparative Cultural Studies

Person Making Request: Dr. Janis F. Hutchinson Telephone: Click here to enter text.

Email: jhutchinson@uh.edu

Dean's Signature: _____ Date: September 27, 2012

Course Number and Title: Introduction to Physical Anthropology 2301

Please attach in separate documents:

X Completed CBM003 Add/Change Form with Catalog Description

X Syllabus

List the student learning outcomes for the course (Statements of what students will know and be able to do as a result of taking this course. See appended hints for constructing these statements):

▶ Students will understand contemporary biological variation within our species from an evolutionary perspective. ▶ Discussions among students on Blackboard about evolution, primate behavior, and the fossil evidence for evolution will create opportunities for students to think critically and communicate about how evolution operates. ▶ Students will understand the genetic mechanisms which bring about evolutionary change. They will compute gene and genotype frequencies and understand the process of protein synthesis (from the DNA to the production of amino acids and proteins). ▶ Students will be able to discuss human fossil evolution as well as demographic changes and changes in health status over time. Quizzes, exams and discussions can be tracked on Blackboard.

Component Area for which the course is being proposed (check one):

☐ Communication

☐ Mathematics

☐ Language, Philosophy, & Culture

☐ Creative Arts

☐ Life & Physical Sciences

☐ American History

☐ Government/Political Science

X Social & Behavioral Science

☐ Component Area Option

Competency areas addressed by the course (refer to appended chart for competencies that are required and optional in each component area):

| | |
|---|---|
| x Critical Thinking | ☐ Teamwork |
| x Communication Skills | x Social Responsibility |
| x Empirical & Quantitative Skills | ☐ Personal Responsibility |

Because we will be assessing student learning outcomes across multiple core courses, assessments assigned in your course must include assessments of the core competencies. For each competency checked above, indicated the specific course assignment(s) which, when completed by students, will provide evidence of the competency. Provide detailed information, such as copies of the paper or project assignment, copies of individual test items, etc. A single assignment may be used to provide data for multiple competencies.

Critical Thinking:
Students will take part in discussions on Blackboard covering creation vs evolution, primate behavior, the origin of bipedalism and language.

Are creationism and evolution polar opposites? Can one believe in both creation and evolution? Why or why not?

Communication Skills:
Students will take part in discussions on Blackboard covering creation vs evolution, primate behavior, the origin of bipedalism and language.

Discussion Question: Bipedalism is the defining characteristics of hominini however, other animals are also bipedal. What makes hominini bipedalism unique and how is hominini bipedalism related to other physical traits that are unique or well developed in humans?

Empirical & Quantitative Skills:
Students will compute gene and genotype frequencies and understand the process of protein synthesis (from the DNA to the production of amino acids and proteins).

Assume two alleles, A and a, at a given locus. If the frequency of the A allele is 0.9 and the frequency of the a allele is 0.1, the expected genotype frequencies are:

a) AA=0.18, Aa=0.10, aa=0.01
b) AA=0.81, Aa=0.18, aa=0.01
c) AA=0.81, Aa=0.10, aa=0.01
d) AA=0.10, Aa=0.80, aa=0.10

Teamwork:

Click here to enter text.

Social Responsibility:
In the discussions, students will explore issues of social responsibility.

In discussion on Blackboard students explore how humans adapted to the physical environment resulting in the evolution of our species and producing contemporary variation. They will link this biological variation with our socially constructed ideas about race today to understand social responsibility.

Personal Responsibility:
Click here to enter text.

Will the syllabus vary across multiple section of the course? ☐ Yes x☐ No
If yes, list the assignments that will be constant across sections:
Click here to enter text.

Inclusion in the core is contingent upon the course being offered and taught at least once every other academic year. Courses will be reviewed for renewal every 5 years.

The department understands that instructors will be expected to provide student work and to participate in university-wide assessments of student work. This could include, but may not be limited to, designing instruments such as rubrics, and scoring work by students in this or other courses. In addition, instructors of core courses may be asked to include brief assessment activities in their course.

Dept. Signature: Dr. Lois Zamora

# ANTHROPOLOGY 2301 (24167)
# INTRODUCTION TO PHYSICAL ANTHROPOLOGY

Fall, 2012
2:30-4:00 M
C 102

Dr. Janis Faye Hutchinson
Office: 258D McElhinney
Office Hours: 1:00-2:00 T,
2:30-3:30 W or by
Appointment
Email: Jhutchinson@uh.edu

Text: *The Human Species: An Introduction to Biological Anthropology*, John Relethford

**General Course Information**

This class is an introduction to biological (or physical) anthropology, a branch of anthropology that seeks to understand, from a biological point of view, what it means to be a human being. In particular, bioanthropology seeks to answer these questions:

- What biological characteristics define the human species?
- How do our genes code for these characteristics?
- What role does the environment play in shaping our traits?
- How does evolution work and how does it apply to us?
- What is the physical record of our evolution?
- How did the biological variation we see in our species today evolve and what do the variable traits mean (and not mean)?
- What can we learn about ourselves by studying the genes, bodies and behavior of our closest living relatives the nonhuman primates (prosimians, monkeys, and apes)?
- And how can we apply all of this to matters of current concern?

In essence, this course deals with the historical and comparative biology of humans, looking at humans as members of the animal kingdom, focusing on the attributes shared with our primate relatives, and the origins of uniquely human attributes. Using the approaches of biological anthropology (and archaeology), we'll trace human physical and cultural development from its earliest beginning, more than five million years ago, to about 15,000 years ago, just before the beginnings of plant and animal domestication and the rise of complex societies.

On a more personal note, my goal in teaching this class is to provide you with the intellectual tools and information that will help you appreciate how a knowledge of yourself as a biological organism with a deep evolutionary past is relevant to your own life as a senscient being on Planet Earth.

**Course Organization**

The course is divided into three parts. We will begin with a survey of the principles of evolution and biological inheritance, so that we can understand how human evolution has come about. Because the evolutionary processes that have produced modern humans are the same processes that have produced every single species that has ever inhabited this planet, evolution and its application to the human species is a central theme of bioanthropology.

In the second part of the course we will take a look at the anatomy, behavior and evolution of our nearest relatives, the non-human primates. Although we often think of ourselves as quite different from other animals, we can learn much about ourselves by studying the genes, bodies and behavior of our closest living relatives, and apply this knowledge to help answer questions about the origins and development of early human behavior.

In the third part we will examine the human fossil and archaeological record, which is made up of the physical remains of our ancestors and the traces of their behavior. We'll look at the evidence revealing:

- When and where did humans ancestors first stand erect and when did they begin to "act human."
- Where, when and why tools were invented?
- What we know about the origins of language, religion, art and the many other social and cultural practices we consider so "human" today.
- The biological and cultural evolution from the earliest direct humans ancestors (the australopithecines) down to today (and perhaps into tomorrow).
- The biological and adaptational reasons underlying the human biological diversity we see in the world today.

**Learning Outcomes:**

The main objective of the course is to understand contemporary biological variation within our species from an evolutionary perspective. To accomplish this goal, mechanisms of biological evolutionary change and adaptation to the environment will be reviewed to examine factors that can alter biology over time and to understand how biological change comes about. Then we will examine the fossil evidence for human evolution. Finally, we will focus on contemporary demographic and health factors from an evolutionary perspective.

- Students will understand contemporary biological variation within our species from an evolutionary perspective.

- Discussions among students on Blackboard about evolution, primate behavior, and the fossil evidence for evolution will create opportunities for students to think critically and communicate about how evolution operates.

- Students will understand the genetic mechanisms which bring about evolutionary change. They will compute gene and genotype frequencies and understand the process of protein synthesis (from the DNA to the production of amino acids and proteins).

- Students will be able to discuss human fossil evolution as well as demographic changes and changes in health status over time.

- Quizzes, exams and discussions can be tracked on Blackboard.

## I. EVOLUTIONARY PRINCIPLES AND MECHANISMS

| Date | Topic | Chapter(s) |
|---|---|---|
| 08/27 | Class Organization<br>Introduction to Physical Anthropology | 1 |
| 08/29 | Evolutionary Theory<br>**Tutorial 1** | 1 |
| 09/03 | Labor Day | |
| 09/05 | Evolutionary Theory<br>**Tutorial 1** | |
| 09/10 | Evolutionary Theory | 1 |
| 09/12 | Mendel/Human Genetics<br>**Tutorial 2** | 2 |
| 09/17 | Human Genetics/ Polymorphisms | 2, 3 |
| 09/19 | Mutation/Gene flow<br>**Tutorial 3** | 2, 3 |
| 09/24 | Natural Selection | 3, 15 |
| 09/26 | Genetic drift/Complex traits<br>**Tutorial 4** | 3 |

**10/01**** Exam #1: Monday, October 1, 2012**

## II. HUMAN VARIATION AND PRIMATE BEHAVIOR

| | | |
|---|---|---|
| 10/03 | Adaptation – Nutrition<br>**Tutorial 5** | 15, 16 |
| 10/08 | Adaptation – High Altitude/Cold/<br>Ultraviolet Radiation | 15, 16 |
| 10/10 | Variation/Racial Variation<br>**Tutorial 6** | 14 |
| 10/15 | Primate Behavior | 5, 6 |
| 10/17 | Primate Behavior<br>**Tutorial 7** | 5, 6 |

**10/22 **** Exam #2: Monday, October 22, 2012**

**III. <u>FOSSIL EVIDENCE FOR PRIMATE AND HUMAN EVOLUTION</u>**

| | | |
|---|---|---|
| 10/24 | Dating Techniques/Paleoanthropology<br>**Tutorial 8** | 8, 9 |
| 10/29 | The Origin of Species<br>Primate Origins – Paleocene to Oligocene | 8, 9 |
| 10/31 | Miocene<br>**Tutorial 9** | 9 |
| 11/05 | Pliocene | 10 |
| 11/07 | Homo habilis/Homo rudolfensis<br>**Tutorial 10** | 11 (pp283-288) |

**11/12**** Exam #3: Monday, November 12, 2012**

**IV. <u>FOSSIL EVIDENCE FOR HUMAN EVOLUTION AND BIODEMOGRAHPY OF HUMAN POPULATIONS</u>**

| | | |
|---|---|---|
| 11/14 | Homo erectus/Neanderthals/Moderns<br>**Tutorial 11/Tutorial 12** | 11 |
| 11/19 | Neanderthals/Modern sapiens | 12, 13 |
| 11/21 | Thanksgiving Holiday | |
| 11/26 | Evolution of Health and Disease/Demographic Evolution | 17 |
| 11/28 | Evolution of Health and Disease/Demographic Evolution<br>**Tutorial 13** | 17 |

**12/03 **** Exam #4: Monday, December 3, 2012**

# Tutorials and Study Guides

**There are 13 tutorials that replace the lectures that you would normally get in a regular face-to-face course. All of them are available for free use, without a password. Tutorials will be available Monday (8:00 am) to Sunday (12:00 am) each week. Afterward, the Tutorials for that week will be deleted. It is important that you download the tutorials each week. They summarize and, in some cases, expand upon the assigned text readings. They are intended to reinforce learning and to provide additional information. The tutorials also have interactive practice quizzes and glossary sections with definitions of terms and concepts. Don't miss the "Related Internet Sites" sections at the end of each tutorial. They will take you to some interesting places.**

# Managing Your Online Course

**Distance learning is not for everyone. You must have consistent access to the Internet and email as well as know how to use them. In order to get a good grade in the course, you must be self-motivated. It is important to keep up with the reading and other assignments every week. Most students consider the course material to be quite interesting, so this should not be too much trouble. However, you must get organized, schedule your study time on a regular basis, and stick to it. If you do not understand an assignment or the course material, ask for clarification immediately. You are the only one who knows what you do not understand. Don't stay in the fog. It is your responsibility to keep track of test dates and other deadlines.**

# TESTS

**Four tests will be given in class during the semester. All tests will be of the "multiple choice /true - false" and will cover materials discussed in class and assigned readings. If a student is unable to take a test at the regularly scheduled time, due to illness or an emergency, the makeup test must be taken within 3 school days of the test date. All makeup exams are essay exams. All exams are worth 100 points each. Examination #4 will not be a final exam and it will only cover the last 25% of the class material (it will not be a comprehensive examination). All students must take exam #4 to complete the course. Four exams will be given during the semester but, the exam with the lowest grade will be dropped. Therefore, your final grade will be based on three exams.**

# QUIZZES

**Nine quizzes will be given during the semester. These quizzes will take place online and will be available during the periods listed below at 8:00 am on the first day to 12:00 am on the last day. The lowest grades for two of the nine quizzes will be dropped. Therefore, only seven quizzes will be used to compute 20% of your grade. You will have 25 minutes to take the quiz. Once you submit the quiz, you cannot take it again. Your quiz will be immediately graded and the score will be available to you.**

Quiz 1 Sept. 13-17 (Evolutionary theory; genetics)

| | |
|---|---|
| Quiz 2 | Sept. 24- 27(Genetics; mechanisms of evolution) |
| Quiz 3 | Sept. 28- Oct.1 (Mechanisms of evolution) |
| Quiz 4 | Oct. 10-14 (Adaptation to the physical environment) |
| Quiz 5 | Oct. 18-22 (Race; primates) |
| Quiz 6 | Oct. 30- Nov.4 (Dating techniques; paleontology) |
| Quiz 7 | Nov. 8- 12 (Evolution of primates; hominini) |
| Quiz 8 | Nov. 26-29 (Hominini evolution) |
| Quiz 9 | Nov. 30- Dec. 3 (Health; demography) |

**This course operates on the honor system. You are expected to do all of your own work. You may study with other students as well as share ideas in our online discussions, but you are on your own when it comes to taking exams and doing the extra credit report. Cheating is not acceptable and is a quick way to flunk.**

# DISCUSSION BOARD

**You will be expected to take part in bulletin board discussions. Your professor will post a question or comment to kick off the discussion. You are expected to post a response (three sentences; not more or less) to the original posting by the instructor and also post a response (three sentences; not more or less) to two of the responses posted by classmates (3 postings). Your postings will be graded using the following rubric:**

| | |
|---|---|
| **Superior**<br>10 points | • Relevant<br>• Original and insightful<br>• Substantial<br>• Clear and persuasive<br>• No grammatical or spelling errors<br>• Meets length specification |
| **Satisfactory**<br>7 points | • Relevant<br>• Original<br>• Substantial<br>• Clear<br>• No grammatical or spelling errors |
| **Adequate**<br>5 points | • Related<br>• Somewhat original |

| | |
|---|---|
| | • Adequate in length<br>• Understandable<br>• Few grammatical or spelling errors |
| **Unsatisfactory**<br>2 points | • Related<br>• Unoriginal<br>• Does not meet length specifications<br>• Unclear<br>• Numerous spelling and/or grammatical errors |

**Discussion topics will be posted:**

September 12-17
October 24-28
November 14-19
November 26-30

# CLASS GRADING

| | |
|---|---|
| Tests | 60% |
| Quizzes | 20% |
| Discussion Board | 20% |

**Tests and Final Grade**

| | | | |
|---|---|---|---|
| 95-100 | A | 72-75 | C |
| 90-94 | A- | 70-71 | C- |
| 86-89 | B+ | 64-69 | D+ |
| 82-85 | B | 55-63 | D |
| 80-81 | B- | 51-54 | D- |
| 76-79 | C+ | $\leq 50$ | F |

## IMPORTANT DATES

Last day to add a class — September 4

Last day to drop a course or withdraw without receiving a grade — September 12

Last day to drop a course without hours

| | |
|---|---|
| Counting towards the Enrollment Cap For Texas Residents | September 12 |
| End of regular filing period to apply online For graduation with $25 non-refundable fee | September 28 |
| Beginning of late filing period to apply online For graduation with $50 non-refundable fee | September 29 |
| End of late filing period to apply online For graduation with $50 non-refundable fee | October 26 |
| Last day to drop a course or withdraw with a W | November 2 |