

RIO HONDO COLLEGE - DIVISION OF BEHAVIORAL & SOCIAL SCIENCES
Anthropology 101L Physical Anthropology Laboratory (1.0 unit)
Summer 2012 – 5 Week Track / M, T, W, R / 10:45 am – 01:10 pm / Science 230 / CRN-50004

COURSE SYLLABUS

(Updated 7/8/2012)

INSTRUCTOR INFORMATION Santiago Andres Garcia, MA / SGarcia@RioHondo.edu / Administration 205, or Science 230 / www.santiagoandresgarcia.com

COURSE DESCRIPTION (1.0 UNIT) This laboratory course, designed to complement the lecture course, is for students interested in expanding their knowledge of physical anthropology. Students will be introduced to the methods, techniques, and procedures used in physical anthropology research, gaining practical experience by participating in laboratory activities and experiments employing the scientific method. Laboratory exercises will include an assessment of the forces that affect evolutionary change, the observation of primate behavior, the assessment of human variation, and the identification and classification of the skeletal features of humans, non-human primates, and human ancestors. Also included will be an exploration of Mendelian, molecular, and population genetics.

STUDENT LEARNING OUTCOMES The goal of this class is to give students a comprehensive view of the evolution of the human species through the overview of theory, the completion of lab exercises, and the examination of fossil replicas. By the end of this course, students that have attended regularly shall be able to (1) explain the evolution of the human species, and the effects of the natural environment on human diversity, (2) identify the structural components of the body, i.e., the skeletal system, and (3) explain the importance of cells, and the genetic information they carry (DNA).

QUIZ/FINAL EXAM MAKE-UP POLICY None of the quizzes will be allowed to be taken after the scheduled date. In the case of an absence, a student should turn in the one extra credit assignment allowed, to make up for the missing quiz points. In the case of the final exam, only students who miss the last day due to an emergency (i.e., documented illness, car accident, or death in the family), will be allowed to retake the final exam on a later day.

STUDENT LOGIN To view the syllabus online and download any required class readings visit the following website <http://www.santiagoandresgarcia.com> and click on the "Rio Hondo Student Page."

ATTENDANCE & PARTICIPATION In order to comprehend the course topics students must attend EVERY class meeting and participate in all classroom discussions and activities. Roll **WILL** be taken daily, and attending class does amount to earning 100 possible points, 20% of one's' final grade.

REQUIRED TEXTBOOK *Exploring Physical Anthropology: A Lab Manual & Workbook*, 2nd Edition, 2010, Suzanne E. Walker-Pacheco, Morton Publishing Company, Colorado, ISBN# 9780895828118

CHEATING, PLAGIARISM, & SEXUAL HARASSMENT See Rio Hondo College catalog.

COURSE SCHEDULE & TOPICS

WEEK # 1

07/09/2012 Monday

Chapter 1 Physical Anthropology as a Science

10:45 am – 11:00 am: Syllabus, book requirement, and classroom etiquette.

11:00 am – 11:15 am: Classroom introductions.

11:15 am – 11:30 am: Introduction to Anthropology.

11:30 am – 12:00 pm: Introduction to Physical Anthropology.
12:00 pm – 12:30 pm: Lecture on Anthropology as a science.
12:30 pm – 01:10 pm: Complete Walker-Pacheco Lab Exercise 1.2, Self-Test 1.1, and “One Step Further.”

07/10/2012 Tuesday

Chapter 2 The Organism and the Cell

10:45 am – 11:00 am: The basic body plan (cells, tissues, and organs).
11:00 am – 11:30 am: Major components of a cell.
11:30 am – 11:45 am: Classes of cells.
11:45 am – 12:00 pm: Introduction to chromosomes.
12:00 pm – 01:10 pm: Complete Walker-Pacheco Lab Exercise 2.1, Self-Test 2.1, and “One Step Further.”

07/11/2012 Wednesday

Chapter 3 The Double Helix and DNA

10:45 am – 11:00 am: DNA defined.
11:00 am – 11:15 am: DNA structure.
11:15 am – 11:30 am: DNA function.
11:30 am – 12:00 pm: Protein synthesis and the replication of cells.
12:00 pm – 01:10 pm: Complete Walker-Pacheco Lab Exercise 3.2, Self-Test 3.1 and 3.2, and “One Step Further.”

07/12/2012 Thursday

10:45 am – 01:10 pm: Video (TBA) and Test #1 on Chapters 1, 2, and 3.

WEEK # 2

07/16/2012 Monday

Chapter 4 How Cells are Made?

10:45 am – 11:30 am: Cell division, mitosis, and meiosis.
11:30 am – 11:45 am: Chromosome aberration.
11:45 am – 01:10 pm: Complete Walker-Pacheco Lab Exercise 4.1, Self-Test 4.1, and “One Step Further.”

07/17/2012 Tuesday

Chapter 5 Inheritance

10:45 am – 11:00 am: Gregor Mendel
11:00 am – 11:15 am: Autosomal traits
11:15 am – 12:00 pm: Transmission of traits and the Punnett Square.
12:00 pm – 01:10 pm: Complete Walker-Pacheco Lab Exercise 5.1, Self-Test 5.1, and “One Step Further.”

07/18/2012 Wednesday

Chapter 6 The Major Forces of Evolution

10:45 am – 11:00 am: The major forces of evolution.
11:00 am – 11:15 am: Natural selection.
11:15 am – 11:30 am: Migration (gene flow).
11:30 am – 11:45 am: Genetic drift.
11:45 am – 12:00 pm: Mutation.
12:00 pm – 01:10 pm: Complete Walker-Pacheco Lab Exercise 6.1, Self-Test 6.1, and “One Step Further.”

07/19/2012 Thursday

10:45 am – 01:10 pm: Video (TBA), and test on Chapters 4, 5, and 6.

WEEK # 3

07/23/2012 Monday

Chapter 7 The Bones Within Us

10:45 am – 11:00 am: Functions of the skeleton, and learning from bones.
11:00 am – 11:30 am: Classification, development, and anatomy of bones.
11:30 am – 12:00 pm: Bones of the skull (frontal, parietals, temporal, occipital, maxilla, etc.)
12:00 pm – 01:10 pm: Complete Walker-Pacheco Lab Exercise 7.1, and 7.2.

07/24/2012 Tuesday

Chapter 7 The Bones Within Us Cont...

10:45 am – 11:00 am: The vertebral column.
11:00 am – 11:15 am: The thorax (sternum and ribs).
11:15 am – 11:30 am: The appendicular skeleton (girdle, limbs, hands and feet, foot and ankles).
11:30 am – 01:10 pm: Complete Walker-Pacheco Lab Exercise 7.3, and 7.4.

07/25/2012 Wednesday

Chapter 8 Forensic Anthropology

10:45 am – 11:00 am: Measuring human biological variation (anthropometry and osteometry).
11:00 am – 11:15 am: Anthropometric techniques.
11:15 am – 11:30 am: Determining sex, male or female?
11:30 am – 11:45 am: Determining age through dentition.
11:45 am – 12:00 pm: Determining ancestry.
12:00 pm – 01:10 pm: Complete Walker-Pacheco Lab Exercise 8.1 – 8.4, and Self-Test 8.1 – 8.4.

07/26/2012 Thursday

10:45 am – 01:10 pm: Video (TBA), and test on Chapters 7, and 8.

WEEK # 4

07/30/2012 Monday

Chapter 9 Comparative Osteology and Functional Complexes

10:45 am – 11:00 am: Evidence from the teeth and skull.
11:00 am – 11:15 am: Tooth Function.
11:15 am – 11:30 am: Tooth Form.
11:30 am – 12:00 pm: Evidence from the post-cranial skeleton.
12:00 pm – 01:10 pm: Complete Walker-Pacheco Lab Exercise 9.1 – 9.2, and Self-Test 9.1.

07/31/2012 Tuesday

Chapter 10 Biological Classification and the Living Primates

10:45 am – 11:00 am: Establishing evolutionary relationships and our shared ancestry.
11:00 am – 11:15 am: Biological classifications.

11:15 am – 11:30 am: Distribution, habitat, and diet.
11:30 am – 12:00 pm: Primate classification.
12:00 pm – 01:10 pm: Complete Walker-Pacheco Lab Exercise 10.1 – 10.3, and Self-Test 10.1.

08/01/2012 Wednesday

Chapter 12 Early Primates from the Paleocene Through the Miocene

10:45 am – 11:00 am: The Cenozoic Era (66 mya to present).
11:00 am – 11:15 am: Primate beginnings of the Paleocene Epoch (66 to 56 mya).
11:15 am – 11:30 am: The “true” primates of the Eocene Epoch (56 to 34 mya).
11:30 am – 11:45 am: The Oligocene Primates (34 to 23 mya).
11:45 am – 12:00 pm: The Miocene Hominoids (23 to 52 mya).
12:00 pm – 01:10 pm: Complete Walker-Pacheco Lab Exercise 12.1, and Self-Test 12.1.

08/02/2012 Thursday

10:45 am – 01:10 pm: Video (TBA), and test on Chapters 9, 10, and 12.

WEEK # 5

08/06/2012 Monday

Chapter 13 Who's in Our Family?

10:45 am – 11:00 am: Bipedalism: the hallmark of humanity.
11:00 am – 11:15 am: Ape-human anatomical comparisons.
11:15 am – 11:30 am: Cranial and dental differences between humans and apes.
11:30 am – 12:00 pm: Early members of the human line.
12:00 pm – 01:10 pm: Complete Walker-Pacheco Lab Exercise 13.1 – 13.3, and Self-Test 13.1.

08/07/2012 Tuesday

Chapter 14 The Genus *Homo*

10:45 am – 11:30 am: Early *Homo*.
11:30 am – 11:45 am: Special case of the Neanderthals.
11:45 am – 12:00 pm: Anatomically modern humans.
12:00 pm – 01:10 pm: Complete Walker-Pacheco Lab Exercise 14.1 – 14.2, and Self-Test 14.1.

08/08/2012 Wednesday

Chapter 15 Modern Human Biological Variation

10:45 am – 11:30 am: Intergroup variation: race and ancestry.
11:30 am – 12:00 pm: Intragroup variation: differences among individuals.
12:00 pm – 01:10 pm: Complete Walker-Pacheco Lab Exercise 15.1 – 15.2, and Self-Test 15.1.

08/09/2012 Thursday

10:45 am – 01:10 pm: Video (TBA), and test on Chapters 13, 14, and 15.

COURSE GRADING SCALE & POINTS BREAKDOWN

Academic Tasks		Possible Points
Classroom Participation (20 days)	x 5	100
Classroom Lab Exercises (15)	x20	300
Quiz's (5)	x20	100

Total Class Points **500**

EXTRA CREDIT Primate Observation Write-up (1-2 pages, double-spaced, informative paper on primate behavior in a captive setting), 25 points possible.

CLASSROOM ETIQUETTE

1. Engage your classmates through dialogue and intellectual conversations; though be respectful and mindful of people's social identities, gender, age, and physical disabilities.
2. Please have all of your electronic devices turned off. It is also recommended that you keep your valuable (expensive) gadgets out of public view. Theft does occur.
3. **ABSOLUTELY NO TEXTING DURING CLASS.** You will be asked to put your phones away during class if this behavior is observed. Please do this during breaks only.
4. When asking a question raise your hand. No shouting or talking out loud. Refer to the instructor as "Instructor Garcia," "Mr. Garcia," "Professor Garcia," or "*Profe*," is fine also.
5. When emailing any instructor, myself included, be professional and clear in your message. "Hey what's up professor?" will not get you a timely response.
6. For this class, laptops for taking notes will not be allowed. THEY ARE a distraction for everyone, including the instructor. As an alternative, lectures can be voice recorded.
7. Assert yourself politely in class. Greet your classmates with "Good evening, how are you?" Give yourself time throughout the day to eat healthy, complete homework, and prepare for class.
8. Practice good hygiene; remember that the classroom is a *shared* space of learning. Arriving to class under the influence of drugs or alcohol is prohibited; **REMAIN** home, for your own safety and the safety of others.

What do you as a student receive in return? A passionate instructor knowledgeable in the disciplines of Mexican culture and history, Mexican-American history, and Anthropology. You will learn in my class, you will be challenged to think beyond the norm, and you will do so with new material. My goal is to aid your learning, teach you, bring out the best in you, and prepare you for what is a long but rewarding educational experience. **See my Teaching Philosophy.**