

PALOMAR COLLEGE
COURSE OUTLINE OF RECORD FOR
DEGREE CREDIT COURSE

 X Transfer Course X A.A. Degree applicable course
(check all that apply)

COURSE NUMBER AND TITLE: ANTH 100L, Physical Anthropology Laboratory

UNIT VALUE: 1.0

MINIMUM NUMBER OF SEMESTER HOURS: 48

BASIC SKILLS REQUIREMENTS: Appropriate language and computational skills.

ENTRANCE REQUIREMENTS

PREREQUISITE: Completion of or concurrent enrollment in Anthropology 100. (ANTH 100)

COREQUISITE: None

RECOMMENDED PREPARATION: None

SCOPE OF COURSE:

This laboratory course provides an introduction to the methods and techniques used in research in physical/biological anthropology. The topics under study include: the scientific method, principles of evolution, human genetics, human osteology, anthropometrics, forensic anthropology, anatomy and behavior of living nonhuman primates, and paleoanthropology.

SPECIFIC COURSE OBJECTIVES:

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

1. Describe and apply the scientific method to physical anthropological research.
2. Describe and demonstrate the principles of evolution.
3. Describe and demonstrate the principles of inheritance and population genetics as they relate to human evolution.
4. Identify all the bones in the human body and discuss their major anatomical functions.
5. Describe and demonstrate appropriate anthropometric techniques in the measurement and analysis of human skeletal materials.
6. Analyze human skeletal materials to assess age, sex, stature, and individual variation.
7. Explain or summarize the principal and relevant State and Federal laws that apply to human remains in archaeological discoveries.
8. Demonstrate the ability to classify and place nonhuman primate specimens in their appropriate taxonomic categories.
9. Describe and assess nonhuman primate cranial and postcranial materials.
10. Develop and evaluate observational data gathering techniques related to nonhuman primates.
11. Identify and evaluate the anatomical and evolutionary significance of various hominid species.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

- I. Scientific method
 - A. Fact, hypothesis, theory
 - B. Inductive and deductive approach
 - C. Data gathering, hypothesis formation, testing
- II. Basic principles of cell biology
 - A. Cell biology
 - B. DNA structure
 - C. DNA replication
 - D. Protein synthesis
 - E. Mitosis and meiosis
 - F. Chromosomal and genetic mutations
- III. Principles of genetic inheritance
 - A. Mendelian inheritance in humans
 - 1. Simple traits
 - 2. Co-dominant traits
 - 3. Sex-linked traits
 - B. Punnett's square
 - C. Population genetics
 - 1. Hardy-Weinberg equilibrium
- IV. Principles of evolution
 - A. Microevolution and macroevolution
 - B. Mechanisms/forces of evolution
- V. Human osteology
 - A. Cranial material
 - B. Postcranial material
- VI. Human variation
 - A. Patterns and causes of human variation
 - B. Principles of anthropometrics
 - C. Forensic anthropology
 - D. Human remains in archaeological discoveries
 - 1. NAGPRA
 - 2. AB 978 (CAL NAGPRA)
 - 3. Sections of the Health and Safety and Public Resources Codes in California
- VII. Nonhuman primates
 - A. Taxonomy of primates
 - B. Anatomy of nonhuman primates and their patterns of locomotion
 - C. Behavior of nonhuman primates
 - D. Observational techniques for behavior of nonhuman primates
- VIII. The fossil record
 - A. Processes of preservation
 - B. Dating techniques
 - C. Morphological and cultural evolutionary trends of hominids
 - D. Morphology, culture and location of various hominid fossils including *Australopithecus*, *Paranthropus*, *Kenyanthropus*, *Homo*

REQUIRED READING:

Examples of basic texts which would be appropriate to the course objectives would include the following:

Campbell, Bernard. Humankind Emerging, 9th ed. New York: Allyn & Bacon, 2002.

France, Diane. Lab Manual and Workbook for Physical Anthropology, 4th ed. Belmont, CA: Wadsworth, 2001.

Jurmain, Robert. et al. Introduction to Physical Anthropology, 9th ed., Belmont, CA: Wadsworth, 2003.

Relethford, John. The Human Species, 5th ed., New York: McGraw-Hill, 2003.

Stein, Robert and Bruce Rowe. Physical Anthropology, 8th ed., New York: McGraw-Hill, 2003.

White, Tim. Human Osteology. Orlando, FL: Academic Press, Inc., 1991.

Wolfe, Linda. Physical Anthropology Laboratory Textbook, 5th ed . Raleigh: Contemporary Publishing Company, 1999.

Zihlman, A. The Human Evolution Coloring Book, 2nd ed. New York: Harper-Collins, 2001.

SUGGESTED READING:

Angeloni, Elvio, ed. Annual Editions: Physical Anthropology 01/02, 10th ed., New York: McGraw-Hill, 2002.

Park, Michael A., ed. Biological Anthropology: An Introductory Reader, 3rd ed. New York: McGraw-Hill, 2002.

REQUIRED WRITING:

An observational paper on nonhuman primate characteristics and behavior is required. The report should be a minimum of five pages in length.

Ten to fifteen laboratory reports will be required, a minimum of 3 pages in length.

OUTSIDE ASSIGNMENTS:

Students are expected to spend a minimum of three hours per unit per week in class and on outside assignments, prorated for short-term classes.

INSTRUCTIONAL METHODOLOGY:

Check all that apply:

- lecture
- laboratory
- lecture-laboratory combination
- directed study

DISTANCE LEARNING:

This course may be offered as a distance learning course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.

Yes No

If yes, check all that apply:

- Television Course (Video one-way, e.g. ITV, video cassette, etc.)
- Online Course (Text one-way, e.g. newspaper, correspondence, electronic file, etc.)
- Two-Way Video Conferencing (Two-way interactive video and audio)
- One-Way Video Conferencing (One-way interactive video and two-way interactive audio)
- Computer Assisted Instruction (A specialized form of mediated instruction relying primarily on student access to information and prepared lessons or teaching materials through a computer terminal, but not under immediate supervision of a qualified instructor.)

GRADING POLICY AND STANDARDS (include methods of determining whether the stated objectives have been met by students):

Students will be graded on the following:

- Three exams (2 midterms and 1 final) These exams may consist of true/false questions, multiple choice questions, matching and essay questions. The exams will be 40% of the course grade.
- Quizzes will be 10% of the course grade.
- Laboratory assignments will be 40% of the course grade.
- An observational paper will be 10% of the course grade.

IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?

Yes No Number of times course may be taken for credit: 1

If yes, identify specific provision of Title 5 Division 2 section(s), 55761-55763 and 58161 which qualifies course as repeatable:

CONTACT PERSON: Anne-Marie Mobilia Behavioral Sciences

SIGNATURES ON FILE