

Course Outline

COURSE: ANTH 1L **DIVISION:** 10 **ALSO LISTED AS:**

TERM EFFECTIVE: Spring 2021 **CURRICULUM APPROVAL DATE:** 12/8/2020

SHORT TITLE: PHYS ANTH LAB

LONG TITLE: Physical Anthropology Lab

<u>Units</u>	<u>Number of Weeks</u>	<u>Type</u>	<u>Contact Hours/Week</u>	<u>Total Contact Hours</u>
1	18	Lecture:	0	0
		Lab:	3	54
		Other:	0	0
		Total:	3	54

COURSE DESCRIPTION:

This laboratory course is offered as a supplement to Introduction to Physical Anthropology either taken concurrently or in a subsequent term. Laboratory exercises are designed to introduce students to the scientific method and hands-on exploration of topics in physical anthropology: genetics; human osteology; comparative and functional skeletal anatomy; primate behavior; human fossil record; modern human variation; and other resources to investigate processes related to human evolution. **PREREQUISITE or COREQUISITE:** ANTH 1, Introduction to Physical Anthropology, may be taken concurrently.

PREREQUISITES:

Completion of ANTH 1, as UG, with a grade of C or better., Concurrent OK

OR

Completion of ANTH 1, as UG, with a grade of or better., Concurrent OK

COREQUISITES:

CREDIT STATUS: D - Credit - Degree Applicable

GRADING MODES

L - Standard Letter Grade

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:

- 04 - Laboratory/Studio/Activity
- 047 - Laboratory - LEH 0.7
- 05 - Hybrid
- 71 - Dist. Ed Internet Simultaneous
- 73 - Dist. Ed Internet Delayed LAB
- 737 - Dist. Ed Internet LAB-LEH 0.7

STUDENT LEARNING OUTCOMES:

By the end of this course, a student should:

1. Apply the scientific method.
2. Identify the outcomes of evolutionary processes.
3. Describe structure and function of DNA and RNA.
4. Demonstrate how human traits are inherited.
5. Identify anatomical and behavioral features of nonhuman primates.
6. Compare the morphology of primates and early hominins.
7. Describe the biological and behavioral adaptations of the genus Homo.
8. Identify defining features of anatomically modern humans.

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Curriculum Approval Date: 12/8/2020

The following units utilize these laboratory activities related to course content in lecture class. Laboratory activities include but are not limited to:

1. Application of scientific methods
2. Investigation of cell biology
3. Examination of genetic traits
4. Exploration of evolutionary mechanisms
5. Investigation of human osteology, forensic and anthropometric methods
6. Comparative behavioral and anatomical studies of non-human primates
7. Comparative anatomy of fossil species
8. Investigation of trends in hominin evolution
9. Investigation into modern human variation and bio-cultural adaptations

3 hours

Content: Nature of scientific inquiry and the scientific method

Student Performance Objectives (SPO): Investigating and demonstrating knowledge of the scientific method through lab exercises, observations of laboratory data, analysis of data, formulation of hypotheses to account for the data, testing hypotheses against independently acquired data; Distinguish scientific methodology from other methods of evaluation or thinking.

3 hours

Content: Mechanisms of evolution, Darwin's natural selection, the origin of species

Student Performance Objectives: Investigating and demonstrating knowledge of examples from nature; Investigating and demonstrating knowledge of cellular transformation through lab exercises and lab reports.

4 hours

Content: Molecular, Mendelian and population genetics

Student Performance Objectives: Investigating and demonstrating knowledge of the double helix, inheritance, and phenotypic traits through lab exercises and lab reports.

3 hours

Content: Comparative primate taxonomy, anatomy and behavior

Student Performance Objectives: Investigating and demonstrating knowledge of taxonomy through lab exercises and lab reports; Applying knowledge to the classification of living primates.

3 hours

Content: Primate Osteology

Student Performance Objectives: Investigating and demonstrating knowledge of nonhuman primate osteology through lab training with primate skeletons.

3 hours

Content: Human Osteology

Student Performance Objectives: Investigating and demonstrating knowledge of human osteology through lab training with human skeletons.

3 hours

Content: Primate Behavior

Student Performance Objectives: Observing and demonstrating knowledge of the behavior of living primates through viewings of videos and websites.

3 hours

Content: The nature of the fossil record including dating techniques, early primates and hominids

Student Performance Objectives: Demonstrating knowledge of the fossil record and dating techniques; Investigating and demonstrating knowledge of early primates from the Paleocene through the Miocene; Lab exercises and reports based on fossil collection study; Evaluate and debate social, cultural, environmental, or other influences on hominid adaptation and survival over time.

6 hours

Content: Human Behavior in Comparative Perspective

Student Performance Objectives: Investigating and demonstrating knowledge of comparisons between human and nonhuman primate behavior; Lab exercises and reports based on fossil collection study and observation of living primates through viewings of videos and websites.

3 hours

Content: Fossil and genetic evidence of human evolution, early members of genus Homo

Student Performance Objectives (SPO): Demonstrating knowledge of fossil and genetic evidence of human evolution; Investigating and demonstrating knowledge of fossil hominids; Lab training in anthropometric studies; Lab exercises and reports based on fossil collection study.

3 hours

Content: Evolution of Homo sapiens

Student Performance Objectives (SPO): Investigating and demonstrating knowledge of the evolution of Homo sapiens through lab exercises and lab reports.

3 hours

Content: Biology of Homo sapiens

Student Performance Objectives (SPO): Investigating and demonstrating knowledge of the biology of Homo sapiens through lab exercises and lab reports.

6 hours

Content: Biocultural adaptations and modern human variation

Student Performance Objectives (SPO): Investigating and demonstrating knowledge of biocultural adaptations and modern human variation; Lab training in Craniometric and Osteometric studies; Identification of postcranial skeletal bones; Lab exercises and reports based on fossil collection study.

6 hours

Content: Human Skeletal Variation and Forensic Anthropology Student Performance

Objectives: Investigating and demonstrating knowledge of human skeletal variation and forensic anthropological techniques: fingerprints, blood analysis, gunshot wounds, trephination, antemortem, perimortem, and postmortem analysis; Lab exercises and lab reports.

2 hours

Final

METHODS OF INSTRUCTION:

Utilize laboratory activities related to course content in the lecture class. Laboratory activities include but are not limited to: 1. Application of scientific methods 2. Investigation of cell biology 3. Examination of genetic traits 4. Exploration of evolutionary mechanisms 5. Investigation of human osteology, forensic and anthropometric methods 6. Comparative behavioral and anatomical studies of non-human primates 7. Comparative anatomy of fossil species 8. Investigation of trends in hominin evolution

METHODS OF EVALUATION:

Category 1 - The types of writing assignments required:

Writing assignments

Percent of total grade: 40.00 %

Lab reports, exams

Objective examinations

Percent of total grade: 30.00 %

Practicums, exams

Problem-solving assignments

Percent of total grade: 15.00 %

Lab reports, quizzes

Skill demonstrations

Percent of total grade: 15.00 %

Practicums, exams

REPRESENTATIVE TEXTBOOKS:

France, Diane. Lab Manual and Workbook for Physical Anthropology. 8th edition.. Cengage,2018.

ISBN: 1305259041

Reading Level of Text, Grade: Reading level of text, Grade: 14 Verified by: Debbie Klein

RECOMMENDED TEXT AND MATERIALS

Hens, Samantha. 2014. Method and Practice in Biological Anthropology: A Workbook and Lab Manual for Introductory Courses. 2nd edition. Pearson. ISBN: 0133825868

Soluri, Elizabeth and Sabrina Agarwal. 2015. Laboratory Manual and Workbook for Biological Anthropology: Engaging with Human Evolution. W. W. Norton & Company. ISBN: 0393912914

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:

GAV B3, effective 201430

CSU GE:

CSU B3, effective 201430

IGETC:

IGETC 5C, effective 201430

CSU TRANSFER:

Transferable CSU, effective 201430

UC TRANSFER:

Transferable UC, effective 201430

SUPPLEMENTAL DATA:

Basic Skills: N

Classification: Y

Noncredit Category: Y

Cooperative Education:

Program Status: 1 Program Applicable

Special Class Status: N

CAN:

CAN Sequence:

CSU Crosswalk Course Department:

CSU Crosswalk Course Number:

Prior to College Level: Y

Non Credit Enhanced Funding: N

Funding Agency Code: Y

In-Service: N

Occupational Course: E

Maximum Hours:

Minimum Hours:

Course Control Number: CCC000550621

Sports/Physical Education Course: N

Taxonomy of Program: 220200