



GEOG 3 - Physical Geography Lab

Catalog Description

Transfer Status: CSU/UC

Prerequisite: GEOG 2 (or concurrent enrollment)

Unit(s): 1.00

Lab: 51.00 Contact hours/0.00 Out of class hours/51.00 Total hours/1.00 Unit(s)

Total: 51.00 Contact hours/0.00 Out of class hours/51.00 Total hours/1.00 Unit(s)

Course Description: This course is designed to provide supplemental exercises in topics covered in Physical Geography lecture. Lab experience will include map analysis and interpretation, weather prognostication, landform processes and evolution, tectonics, biogeography, and habitat analysis. (C-ID GEOG 111).

Objectives

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

1. Applications and activities related to the size, shape, and movements of the Earth in space and their importance to environmental patterns and processes;
2. Applications and activities related to the atmospheric, geomorphological, and biotic processes that shape the Earth's surface environments;
3. Applications and activities related to the global distribution of the world's major climates, ecosystems, and physiographic (landform) features;
4. Applications and activities related to basic concepts of physical geography in the analysis of real-world variations in environmental patterns; and
5. Applications and activities related to the scientific method and practical experience using the tools and concepts of physical geography (laboratory component).

Course Content

Topic Titles / Suggested Time Topic	
	<u>Lab</u>
<u>Topics</u>	<u>Lab Hrs</u>
Size, shape, and movements of the Earth in space and their importance to environmental patterns and processes	10.00
a. Map interpretation	
b. Landform interpretation	
c. Earth-Sun relationships	
Atmospheric, geomorphological, and biotic processes that shape the Earth's surface environments	10.00
a. Map interpretation	
b. Geographic grid	
c. Landform interpretation	
d. Common rock identification	
Global distribution of the world's major climates, ecosystems, and physiographic (landform) features	10.00
a. Map interpretation	
b. Landform interpretation	
c. Biogeography	
d. Plate Tectonics	
Basic concepts of physical geography in the analysis of real-world variations in environmental patterns	10.00
a. Landform interpretation	
b. Earth-Sun relationships	
c. Weather and climate	
Scientific method and practical experience using the tools and concepts of physical geography	11.00
a. Map interpretation	
b. Geographic grid	
c. Landform interpretation	
d. Common rock identification	
e. Plate Tectonics	
Total Hours: 51.00	

Methods of Instruction

- A. Class Activities
- B. Demonstrations
- C. Field Trips

Methods of Evaluation

- A. Exams/Tests
- B. Quizzes
- C. Papers
- D. Oral Presentation
- E. Projects
- F. Homework
- G. Graded laboratory projects, Laboratory exams

Examples of Assignments

Reading Assignments

1. Read the portion of the lab manual pertaining to longitude as used in global mapping. Be prepared to demonstrate in our lab how this construct works for global map making and for purposes of navigation and marking time changes.
2. Read the article in your lab manual that focuses on zonation. Be prepared to identify specific elevation zones based on photographs presented in our lab session.

Writing Assignments

1. Write a synthesis of your lab notes with attention to our unit on quadrangle maps. How are these maps useful? What are their limitations?
2. Write a short (250 words) summary of our lab exercise that dealt with calculating triangulation. Include some discussion of remote sensing and how remote imagery can overcome problems associated with triangulation (i.e. dealing with imagery distortion).

Out-of-Class Assignments

1. Visit the geography lab at CSU Chico. Find out how they generate maps that are subsequently used by local geophysicists. Share this information with your colleagues in our lab.
2. Attend the annual meetings of physical geographers being held this year at CSU Chico. Pick a presentation that deals with local water conservation issues. Be prepared to discuss your selected presentation when you return to our lab.

Recommended Materials of Instruction

Hess, D. (2021). Physical Geography - Lab Manual. *Pearson*, 13th. 9780135918395.

Zero Cost Textbook

Physical Geography, Laboratory (C-ID GEOG 111)

Physical Geography Lab Manual (Ray et al., 2020) (CC BY-NC 4.0) – Word Doc

Physical Geography Lab Manual (Ray et al., 2020) (CC BY-NC 4.0) – Google Docs

Manual for Physical Geography, Lab Course – Canvas Commons

This peer-reviewed lab manual includes twenty lab exercises designed for California community college students.

Other Learning Materials

Veregin, H. Goode's World Atlas, 23rd ed. Pearson, 2017.

Minimum Qualifications

Geography (Masters Required)

Created/Revised by: Bynoe, Cynthia

Date: 03/11/2024