

COLLEGE OF THE CANYONS

GENERAL COURSE INFORMATION

1. **Subject Code:** [GEOG](#)
2. **Course Number:** [101L](#)
3. **Course Title:** [Physical Geography Lab](#)
4. **Effective Date:**
5. **Discipline:**

[Geography - Masters](#)

6. **Semester of First Offering:**

SECTION D

Articulation Information: (Required for Transferable courses only)

1.

- CSU Transferable.
- UC Transferable.
- CSU/UC major requirement.
If CSU/UC major requirement, list campus and major.

[UC Transferable effective 8-15-05](#)

2. List one community college and its comparable course. If requesting CSU and/or UC transferability also list a CSU/UC campus and comparable lower division course.

[Glendale Community College Geography 111](#)

[CSUN Geog 102-Physical Geography lab and UC Davis- Geog 1- Physical Geography \(includes lab\).](#)

[Moorpark College Geography MO1 L](#)

[Antelope Valley College Geography 101 L](#)

SECTION E

Resources:

Please consider the identified concerns below:

1. **Library:** Please identify the implications to the library

[None.](#)

2. **Computer Support Services:** Please identify the implications to Computer Support Services:

[None.](#)

3. **TLC Lab :** What are the implications to the TLC lab of this course being offered?

[None.](#)

SECTION H

General Course Information

1. **Units:** [1.0](#) **Variable units** [n/a](#)

(*Units of credit are based on: 1 unit of credit per one hour of lecture (plus 2 hours of outside class independent study); 1 unit of credit per

[three hours](#) of activity or lab.)

2. This Course is:

Associate Degree Applicable - UC transferable

3. Cross-List:

No.

Course Format and Duration

4. Maximum Contact Hrs per Term

Lecture/Discussion:

Lab: 54

Activity:

By Arrangement:

Total Maximum Contact Hrs per Term 54 - 0

5. Short Term Total Hrs

Lecture/Discussion:

Lab:

Activity:

By Arrangement:

Total Hrs

Methods of Instruction

6. Check all instructional methods used to present course content.

- | | |
|---|--|
| <input type="checkbox"/> Lecture | <input type="checkbox"/> Activity |
| <input type="checkbox"/> Discussion Seminar | <input checked="" type="checkbox"/> Distance Ed (requires supplemental form) |
| <input checked="" type="checkbox"/> Lab | <input type="checkbox"/> Work Experience |
| <input type="checkbox"/> Directed Study | <input type="checkbox"/> Tutoring |

Other:

Course Preparation – (Supplemental forms required)

7a. Prerequisite(s): (Course and/or other preparation/experience that is REQUIRED to be completed previous to enrollment in this course.)

None.

7b. Co-requisite(s): (Courses and/or other preparation that is REQUIRED to be taken concurrently with this course.)

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7c. Recommended: (Minimum preparation RECOMMENDED in order to be successful in this course. Also known as "Course Advisory".)

No.

Catalog Description And Other Catalog Information

8. Repeatability:

Not Repeatable

Please Note: 8. (Repeatability) does not refer to repeating courses because of substandard grades or a lapse of time since the student took the course. A course may be repeated only if the course content differs each time it is offered and the student who repeats it is gaining an expanded educational experience as stipulated in *Title V*.

Skills or proficiencies are enhanced by supervised repetition and practice within class periods.

- Active participatory experience in individual study or group assignments is the basic means by which learning objectives are attained.
- Course content differs each time it is offered.

Explanation for above repeatability selection:

9a. Catalog Description:

Focuses on observations, experiments, and demonstrations designed to familiarize students with techniques utilized by physical geographers. Field trips may be required.

9b. Class Schedule Description: (One or two sentences describing course content for the prospective student. Does not require as much detail as the Catalog description.)

Focuses on observations, experiments, and demonstrations designed to familiarize students with techniques utilized by physical geographers. Field trips may be required.

9c. Grading Option: LR - Letter Grade Only

Course Outline Information

10. Student Learning Outcomes: (Outcomes for **all** credit courses must indicate that students will learn critical thinking and will be able to apply concepts at college level. Outcomes must be related to Catalog Description, Course Content, and Objectives.)

The student will be able to:

- A) Analyze and interpret various types of maps, graphs, and tables depicting topographic, geologic, meteorologic, climatic and cartographic data.
- B) Collect, interpret, and present data obtained during field trips, from aerial photographs, and from the Internet.
- C) Analyze the relationship between the atmosphere, biosphere, hydrosphere, and lithosphere.

Objectives:

- A) Describe the basic elements of maps and the components of cartography, such as isolines, scale, projections, and grid systems.
- B) Examine Earth/Sun relationships, seasons, solar angles, Earth's shape, and telling time around the world.
- C) Analyze topographic map data to recognize and interpret past and present geomorphic processes such as volcanic, seismic, aeolian, arid, glacial, coastal, pluvial, mass wasting, karst, and fluvial.
- D) Gather, interpret, and assess data from field work that shows the relationships between plants, soils, climates, elevation, water, and landforms. This will be done by measuring, sampling, mapping, and observing the spatial distribution and relationships of the environment.

11. Course Content Outline: (Provides a comprehensive, sequential outline of the course content, including all major subject matter and the specific body of knowledge covered.)

I. MAPPING BASICS

- A. Introduce basic map essentials;
- B. Introduce use of various maps including:
topographic, geologic, and weather maps;

- C. Use the latitude and longitude coordinate system to identify locations;
- D. Use various map scales to interpret distances;
- E. Identify commonly used map projections and analyze the advantages and limitations of each;
- F. Use Township and Range survey system to identify locations;
- G. Analyze the relationship between Township and Range and spatial patterns of the United States.

II. TOPOGRAPHIC MAP SKILLS

- A. Emphasize and practice skills needed to interpret topographic maps;
- B. Describe how topographic maps portray relief and both natural and anthropogenic features;
- C. Introduce and explore various uses of isolines;
- D. Construct elevation contours, calculate slope angles, and draw contour profiles;
- E. Recognize basic landform characteristics on topographic maps including: fluvial, volcanic, glacial, and shoreline landforms;
- F. Compare aerial photograph and topographic map data.

III. EARTH-SUN RELATIONSHIPS AND SEASONS

- A. Calculate and diagram Earth-Sun relationships throughout the year;
- B. Use diagrams to understand the reasons for the seasons;
- C. Use an analemma to determine solar angles and declination of the sun throughout the year.

IV. WEATHER AND CLIMATE

- A. Use various lapse rates to predict temperature, pressure and elevation;
- B. Calculate relative humidity and absolute humidity;
- C. Explore adiabatic processes, orographic precipitation, and rainshadow effect;
- D. Classify climates using the Koppen classification system;
- E. Construct climographs and compare climate regions;
- F. Read weather maps and predict weather conditions;
- G. Use various weather instruments to collect, analyze, and interpret weather data;
- H. Integrate climate and weather data to analyze vegetation and soil patterns;
- I. Explore the relationships among weather, climate, landforms, and biogeography.

V. FIELD TECHNIQUES

- A. Explore various field techniques including observation, measurement, data recording, and instrument use;
- B. Learn to read a compass, determine compass directions, use azimuth and bearing, and be able to indicate locational direction both with and without a map.

VI. GEOGRAPHIC SKILLS

- A. Explore methods useful for the presentation of geographic information;
- B. Use the Internet to research geographic subjects;
- C. Relate ways in which geography and geographic skills are used in a variety of professions.

12. Methods of Evaluating Student Achievement: (All courses must provide for measurement of student performance in terms of stated student performance objects, Area 10, and culminate in a formal recorded grade based on uniform standards. Submit at least 2 examples.)

Student assessment will be based on the successful completion of in-class lab activities, at least one exam, and a project involving application of geographic skills.

13. Typical Assignments: (Credit courses **require** two hours of independent work outside of class per unit of credit for each lecture hour. List types of assignments, including library assignments.)

a. Reading Assignments: (Submit at least 2 examples)

1. Conduct a library search and read two articles on recent developments in remote sensing and satellite imagery.

b. Writing, Problem Solving or Performance: (Submit at least 2 examples)

1. Research temperature, precipitation, and wind data from at least four locations in order to compare and contrast climates among them.

2. Research sea-level temperature and insolation data from at least four locations and explain the causes of the variations.

c. Other (Terms projects, research papers, portfolios, etc.)

1. Small group activity: Groups of 4 that will each research a different topic and present a 10-minute class presentation.

2. Field trips are required. The length and location of trips are the instructor's choice and may vary each semester depending on weather and road conditions, season, or choice of topic to be studied. Alternatives to this requirement will be available depending on accessibility and student limitations and will be discussed individually.

3. Create a portfolio/journal of the class field trip.

4. Conduct an Internet search of field mapping techniques in professions such as forestry, slope management, or fire suppression.

14. Required Materials:**a. EXAMPLES of typical college-level textbooks (for degree-applicable courses) or other print materials.**Book 1:

Author: McKnight, Tom and Darrel Hess
 Title: Laboratory Manual Physical Geography: A Landscape Appreciation
 Publisher: Prentice Hall
 Date of Publication: 2008
 Edition: ninth

Book 2:

Author: Christopherson, Robert W. and Gail Lewis Hobbs
 Title: Applied Physical Geography - Geosystems
 Publisher: Prentice Hall
 Date of Publication: 2008

Book 3:

Author:

Title:

Publisher:

Date of Publication:

Edition:

Book 4:

Author:

Title:

Publisher:

Date of Publication:

Edition:

Book 5:

Author:

Title:

Publisher:

Date of Publication:

Edition:

b. Other materials and/or supplies required of students:

none