



ANTELOPE VALLEY COLLEGE

Academic Affairs Office
Course Outline of Record

COURSE SUBJECT & NUMBER: GEOG 101L

COURSE NAME: *Physical Geography Laboratory: Earth's Surface Landscapes (formerly Physical Geography Lab)

COURSE UNITS: 1

COURSE HOURS: 3

COURSE REQUISITES: *(Follow format of similar courses found in the college catalog.)*

Prerequisite: Completion of GEOG 101 or concurrent enrollment.

COURSE DESCRIPTION: *(Write a short paragraph providing an overview of topics covered. Be sure to identify target audience--transfer, major, GE, degree/certificate, etc. If repeatable, state the number of times at end of description).*

Provides students with a hands-on introduction to the processes at work shaping Earth's surfaces. This class provides an introduction to the methods used to present spatial relationships found in our physical environment. Students will identify, explore, analyze, and compare methods used in mapping and expressing spatial relationships. Students will develop fundamental geographic skills that can be used in a variety of professional situations.

COURSE OBJECTIVES: *(Should be stated as performance-based, measurable expected student outcomes. Use Bloom's taxonomy to formulate clear and concise objectives. These objectives are common to all students; they must be clearly related to course content, assignments, and methods of evaluation.)*

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

1. Analyze how maps record locations and other forms of spatial information.
2. Discuss map scale and analyze map projections.
3. Demonstrate how topographic maps present information.
4. Measure locational relationships using a compass.
5. Prepare isoline (contour) maps from elevation data.
6. Document and examine geographic phenomenon and occurrences in the physical environment.
7. Interpret and appraise spatial information presented on maps.
8. Describe the formation processes that lead to different minerals, rocks and soils.
9. Analyze applications of geographic skills in a variety of professions.

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COURSE CONTENT: *(Enter course content in terms of specific topics or a specific body of knowledge that each instructor must cover. Put topics in outline form with major and minor headings. Title 5 requires that each instructor covers all material listed here.)*

Mapping Basics -

How maps describe space

The lat/long coordinate system

How maps reduce reality

Map Scales & distances

Converting miles to metric

Commonly used map projections and limitations of each projection class

Township & Range grid system

Relationships between time zones, solar angles and seasonal change

Topographic Map & Compass Skills -

Interpreting topographic maps

How topographic maps portray relief and surface features

Constructing elevation contours, calculating slope angles and drawing profiles

Recognizing basic landform characteristics on topographic maps including: fluvial, volcanic, glacial and shoreline landforms

Compasses & location relationships

Compasses & topographic maps

Rocks & Minerals

Common minerals

Categorizing rocks by formation processes

Methods of soil classification

Applying Geographic Skills -

Methods useful for presentation of geographic information

The Internet & geographic research

Organized presentation of geographic information

Geography and geographic skills in professional settings

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TYPICAL READING, WRITING, AND COMPUTATIONAL ASSIGNMENTS

This material is necessary for all credit courses. Assignments should be clearly related to course objectives, content, and methods of evaluation. (See sample of a "Model Outline" in the AP&P Standards & Practices handbook.) Include a range of assignments (minimum of three) from which faculty may choose when designing their syllabus.

1. Describe nature and frequency of typical reading assignments if applicable; note if any are required:

Students will be required to read geography text book weekly and use other sources such as reference books, periodicals for reference scientific journals, and websites to supplement assigned readings.

2. Describe nature and frequency of typical writing assignments if applicable; note if any are required:

Students will write short answers to questions for each lab activity. Students will take notes and answer questions describing and documenting land formation processes. Students will write a short paper documenting how geography is used in a professional setting.

3. Describe nature and frequency of typical computational assignments if applicable; note if any are required:

Students will perform mathematical computations during every lab session. These computations assume knowledge of basic algebra. Students will graph slope profiles. Students will use scale ratios to convert miles to metric & metric to miles. Students will calculate the latitude & longitude of an unknown place from solar angles and time differences.

4. If course is degree applicable/transfer, describe those critical thinking skills that are required; be sure that they reflect course objective. (Title 5 requirements can be found in the AP&P Standards and Practices book.)

Students will analyze several methods of presenting spatial information and mapping techniques. Students will analyze topographic maps. Students will analyze the relationships between solar angles, time zones & locations. Students will construct & evaluate compass courses.

5. Describe other types of assignments that students may be asked to complete:

Students will be required to interpret and create maps and other diagrams useful in the presentation of geographic information.

6. For each of the above categories, describe the estimated time per week it would take a student to complete typical out-of-class assignments. Title 5 uses the Carnegie formula for establishing units using a 2:1 ratio as follows: 1 hr. lecture = 2 hrs. homework; 2 hrs. lecture = 4 hrs. homework; etc. For example: reading text—2 hours; writing reports—3 hours

Reading: Students will spend one hour out of class reading texts & using internet resources.

Writing: Students will spend one hour recording geographic information

Computational: Students will spend one hour recording geographic information with numbers

Other: Students will spend one hour out of class observing geographic phenomena.

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METHODS OF INSTRUCTION: *(Methods must be consistent with content and appropriate to objectives; state in terms of what instructor will be doing in order to present course content to students.)*

Methods and procedures for each lab activity will be explained to the students with lecture and demonstration at the beginning of each lab session. Students will be constantly monitored for comprehension as they are guided through hand-on lab activities.

METHODS OF EVALUATION: *(These must be clearly related to course content, assignments, and objectives, in order to comply with Title 5 requirements. Describe what instructor will be looking for when evaluating assignments and tests in order to determine whether students have met course objectives. Grades must be based on demonstrated proficiency in subject matter and determined, where appropriate, by essays, objective and essay tests, research papers, problem solving exercises, or skills' demonstrations.)*

Student evaluations will be based on
Successful completion of in-class lab assignments.

There will be at least one test in which student comprehension will be evaluated on the following topics:

- how maps record locations and other spatial information,
- map scale and analysis of map projections,
- demonstration of how topographic maps present information,
- use of a compass to describe locational relationships,
- how isoline (contour) maps are created from from elevation data, and
- documenting the formation processes that lead to different minerals, rocks and soils.

Completion of projects involving exploration of professions where geographic skills are applied and documentation geographic phenomenon and occurrences in the physical environment.

Suggested Texts or other Instructional Materials (include title, author, publisher, date, and edition):

Building Geographic Skills - Lab Manual. Welsh, Susan. Self published 2003

Effective Date: _____

(date course can first be offered to be filled in by Office of Academic Affairs)