GEOG G180L: PHYSICAL GEOGRAPHY LABORATORY

Item	Value
Curriculum Committee Approval Date	10/06/2020
Top Code	220600 - Geography
Units	1 Total Units
Hours	54 Total Hours (Lab Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)
Local General Education (GE)	• GWC Physical Universe*** (GB1)
California General Education Transfer Curriculum (Cal-GETC)	• Cal-GETC 5C Laboratory Activity (5C)
Intersegmental General Education Transfer Curriculum (IGETC)	• IGETC 5C Laboratory Activity (5C)
California State University General Education Breadth (CSU GE-Breadth)	• CSU B3 Laboratory Activity (B3)

Course Description

Formerly: GEOG G181. This course is designed to provide supplemental, practical laboratory exercises that correlate to topics covered in Physical Geography G180. Lab experience will include map analysis and interpretation, weather prognostication, landform processes and evolution, tectonics, biogeography, and habitat analysis. PREREQUISITE: GEOG G180 or concurrent enrollment. Transfer Credit: CSU; UC. C-ID: GEOG 111. **C-ID:** GEOG 111.

Course Level Student Learning Outcome(s)

1. Course Outcomes
2. Analyze physical geographic processes using the scientific method, tools, and techniques used in physical geography.
3. Interpret the interactions of the Earth's atmosphere, hydrosphere, lithosphere, and biosphere.
4. Describe Earth-Sun relations as they relate to physical geography.

Course Objectives

- 1. Determine the size, shape and movement of Earth and how its relation to the sun impacts environmental patterns and processes.
- 2. Analyze atmospheric, geomorphic, and biotic processes that create the Earths physical environment.
- 3. Identify and classify global climates, ecosystems, biomes, and landforms.
- 4. Apply basic physical geography concepts to real-world environmental patterns and variations.
- 5. Utilize the scientific method, tools and techniques to understand basic physical geography processes.

Lecture Content

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Lab Content

Geographic Grid and Time Latitude and longitude Standard time zones Earth-Sun Relationships Concepts of parallelism, axial tilt, solar rays Characteristics of solstice and equinox Latitudinal insolation Map Interpretation Map projections Map scales Topographic maps Isolines and landforms Atmospheric Pressure and Temperature Incoming solar radiation Marine effect and continentality Pressure profiles Circulation and wind Humidity and Precipitation Relative humidity Dew point temperature Cloud classification Lifting mechanisms Weather Types of fronts Interpreting weather maps Weather patterns Hydrology and the Water Cycle Soil water budget Evapotranspiration Water resources Climate Classification and Biogeography Climographs Koppen Classification System Biomes Life Zones Tectonics Plate boundaries and faults Rate of plate movement Mountains and valleys Soils Classification Drainage and porosity Geomorphology and Landforms Rock cycle and identification Mass movement Glaciers Coastal features and processes

Method(s) of Instruction

- Lab (04)
- DE Live Online Lab (04S)
- DE Online Lab (04X)

Instructional Techniques

Abbreviated lecturesUse of audio and visual mediaUse of charts, maps, models, graphs, diagrams, and illustrationsGroup discussions and activitiesHandouts, worksheets, or exercisesInstructor feedback on projects and assignmentsDemonstrations

Reading Assignments

Chapters from lab manuals and/or handouts and supplemental reading related to course content.

Writing Assignments

Written interpretation and anaylsis of lab exercises Lab reports

Out-of-class Assignments

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Demonstration of Critical Thinking

Analyze, synthesize, and evaluate the distribution and relationships within and among natural phenomena of Earth.

Required Writing, Problem Solving, Skills Demonstration

Individual and group laboratory exercises and experiments of a hands-on, practical nature including demonstration of methodology, techniques and report generation of results. Written analysis and interpretation of observations, maps, charts, graphs, tables, diagrams, and illustrations.

Eligible Disciplines

Geography: Masters degree in geography OR bachelors degree in geography AND masters degree in geology, history, meteorology, or oceanography OR the equivalent OR see interdisciplinary studies. Masters degree required.

Textbooks Resources

1. Required Hess, D.. McKnights Physical Geography: A Landscape Appreciation, 12th ed. San Francisco: Pearson, 2017 2. Required Christopherson, R. W., Birkeland, G.. Geosystems: An Introduction to Physical Geography, 10th ed. Boston: Pearson, 2018

Manuals Resources

1. Hess, D.. Physical Geography Laboratory Manual, 12 edition, Pearson , 01-01-2017 2. Thomsen, C.E., Christopherson, R. W.. Applied Physical Geography: Geosystems in the Laboratory, 10th edition, Pearson , 01-01-2018

Other Resources

1. Instructor prepared maps, charts, tables, articles, web links, and other handouts of important information, instructions, or supplemental material necessary for the completion of the exercises.