GEOG A180: PHYSICAL GEOGRAPHY

Item	Value
Curriculum Committee Approval Date	11/15/2017
Top Code	220600 - Geography
Units	3 Total Units
Hours	54 Total Hours (Lecture 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
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S)
Associate Arts Local General Education (GE)	• Area 5 Physical and Biological Sciences, Scientific Inquiry, Life Science (OB)
Associate Science Local General Education (GE)	• Area 5 Physical and Biological Sciences, Scientific Inquiry, Life (OSB)
California General Education Transfer Curriculum (Cal-GETC)	• Cal-GETC 5A Physical Science (5A)
Intersegmental General Education Transfer Curriculum (IGETC)	• IGETC 5A Physical Science (5A)
California State University General Education Breadth (CSU GE-Breadth)	• CSU B1 Physical Science (B1)

Course Description

A study of the basic physical elements of geography and their integrated patterns of world distribution. Particular emphasis is given to climate, land forms, soils, and natural vegetation. Enrollment Limitation: GEOG A180H; students who complete GEOG A180 may not enroll in or receive credit for GEOG A180H. Transfer Credit: CSU; UC. C-ID: GEOG 110.**C-ID:** GEOG 110.

Course Level Student Learning Outcome(s)

1. Student will identify, analyze and interpret spatial information for the earth's physical features.
2. Student will understand the spatial distributions, processes and controls of the earth's physical features from the global to local scale.

Course Objectives

- 1. Compare and contrast the different theoretical approaches to geography.
- 2. Describe the various maps in Cartography and explain their origin.
- 3. Identify the significant dates in the Earth?s seasonal patterns.
- 4. Explain Koppen?s climate system.
- 5. Explain the components of the Earth?s complex wind system.
- 6. Explain what is meant by the ?geological timetable.?
- 7. Identify the various rocks that are found on earth.
- 8. Explain the mountain-building process.
- 9. Compare and contrast significant volcanoes with earthquake faults.
- 10. Explain the origins of artesian water.
- 11. Identify the major deserts of the world.
- 12. Explain the evolution of coastlines, rivers, and islands.
- 13. Identify and explain significant geological and geomorphological features of glaciation.
- 14. Analyze the impact of glaciation on California, the U.S., and the world.
- 15. Explain the effects of ocean currents on climates around the world.

Lecture Content

Mapping and geography in general Defining Geography Famous Geographers Jobs in Geography Map making Latitude and Longitude Special maps Map symbols (U.S.G.S.) Maps Township and Range system Seasons Revolution, rotation, precession, speed Latitude and longitude Time and time zones Equinox, solstice, periheon, aphelion, and dates Weather Atmosphere, troposphere, tropopause, stratosphere, mesosphere, thermosphere, exosphere Ionization and the aurora borealis Insolation - radiation, conduction and convection Isotherms, isobars Barometers, mercury and aneroid Atmospheric pressure; Ferrel s Law Vaporization, condensation, and cloud types Types of atmospheric wind disturbances Koppen climate system Weather addendum Weather Records: hottest, wettest, cold places Reading weather symbols on synoptic charts Geology I Geologic timetable: Eras, Periods, Epochs Petrology, mineralogy, geology Lithosphere, crust, mantle, core Rocks: composition and formation Coal, bituminous and anthracite Erosive forces: water, wind, ice Folds, faults, and fault features Types of mountains Famous volcanoes: their unique features Plate tectonics and continental drift: (Examples: East African Rift Valley, Yellowstone, Hawaii) Seismology, tidal wave, tsunami, Lituya Bay Shields: Australia, Canada, South Africa Geology II Rivers and flood plains Deltas around the world Areas with ground water vs. arid landscapes: their vegetation characteristics Coastal charac teristics Islands: continental, volcanic, coral, fringing reef, barrier reef, atoll Specific caves around the world Great soil belts and prairies; their vegetation Glaciation and Ocean Currents Pleistocene, Permian, and Pre-Cambrian glaciation Greenland and Antarctica California Glaciation Theories: Solar, C02, volcanic, ocean current (Ewing-Donn), Astronomical (Milankovitch) Glacial features Ice features Depositional features Glacial Lakes Glacial Periods Ocean currents West wind drift

Method(s) of Instruction

- Lecture (02)
- DE Online Lecture (02X)

Instructional Techniques

1. Lecture and explanation of topic concepts. 2. Instructor will provide handouts. 3. During lecture overhead projector will be used. 4. Instructor will diagram geographical material on chalkboard. 5. Instructor will answer student questions during lecture. 6. Instructor will discuss concepts with students during in-class projects, i.e. studying maps, creating a time wheel.

Reading Assignments

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Writing Assignments

Students will write papers analyzing factors in physical geography. Analyze the total impact of the Township and Range System. Compare and contrast the extreme weather records found worldwide and analyze their impact on mankind.

Out-of-class Assignments

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Demonstration of Critical Thinking

Students will use library materials to complete their writing assignments. Objective examinations covering text and lecture material. Short written answers with objective exams.

Required Writing, Problem Solving, Skills Demonstration

1. Students will write papers analyzing factors in physical geography.
   a. Analyze the total impact of the Township and Range System. b. Compare and contrast the extreme weather records found worldwide and analyze their impact on mankind.

Eligible Disciplines

Geography: Master's degree in geography OR bachelor's degree in geography AND master's degree in geology, history, meteorology, or oceanography OR the equivalent OR see interdisciplinary studies. Master's degree required.

Textbooks Resources

1. Required Christopherson, RW. Geosystems, ed. Upper Saddle River: Pearson, 2009 2. Required Gabler, R.E., et.al. . Essentials of Physical Geography, ed. Florence: Cengage, 2009 3. Required McKnight, T.L. . Physical Geography, A Landscape Appreciation, ed. Upper Saddle River: Pearson, 2008

Other Resources

1. Current Atlas such as Goode?s, Rand McNally, Nystrom or Hammond?s