

# GEOGRAPHY (GEOG)

## GEOG-100

### Introduction to Global Studies

3 UNITS

3.0 hours lecture

This course is an introduction to the interdisciplinary field of Global Studies, including the history, causes and evolution of globalization, as well as the role of geography in the process of globalization. The economic, political, social/cultural, and environmental/ecological dimensions of globalization will also be examined. (CSU/UC) (AA/AS-D, CSU-D, IGETC-4)

## GEOG-101

### Global Issues

3 UNITS

3.0 hours lecture

An introduction to the origins, current status, and future trends of major transnational issues confronting the global community. Students will learn about population trends, economic development and inequality, issues of access to basic human needs such as food, water, and healthcare, human rights, international conflict and security concerns, and environmental problems including those that contribute to climate change. Global governance and collective global responsibilities will also be examined. (CSU/UC) (AA/AS-D, CSU-D, IGETC-4)

## GEOG-104

### Introduction to Geographic Information Science

3 UNITS

Prerequisite: Appropriate Placement or Intermediate Algebra.

2.0 hours lecture, 3.0 hours laboratory

Fundamental concepts in geographic information systems including cartography, global positioning systems (GPS), remote sensing, and spatial statistics. Hands-on use of current, industry-standard computer technologies that enhance geographic analysis and improve decision-making abilities for solving geospatial problems in a wide range of applications. (C-ID GEOG 155) (CSU/UC) (AA/AS-A3)

## GEOG-106

### World Regional Geography

3 UNITS

3.0 hours lecture

World Regional Geography explores the world around us region by region combining an examination of both environmental and cultural characteristics. The course prepares students to make sense of an increasingly connected world in which global events have local significance. The regions' physical situation along with demographic, linguistic, religious, political, and developmental patterns provide the framework for comparing and contrasting the various world regions. Real world, real time current events specific to individual regions are used to illustrate course concepts. Although open to all students this course was originally designed for Liberal Studies education majors wishing to satisfy requirements for California Multiple Subject Teaching Credentials. (CSU/UC) (AA/AS-D, CSU-D, IGETC-4)

## GEOG-120

### Physical Geography: Earth Systems

3 UNITS

3.0 hours lecture

Explore your world! Drought! Fire! Climate Change! Quakes! This physical science course describes and explains the Earth's major physical systems, the basic energy and material flows by which these systems operate, and the result of human interaction with these flows. Phenomena explored include storms, climate, ecosystems, seasonal change, plate tectonics, stream and glacial activity, and beach systems. (C-ID GEOG 110) (CSU/UC) (AA/AS-B2, CSU-B1, IGETC-5A)

## GEOG-121

### Physical Geography: Earth Systems Laboratory

1 UNITS

Prerequisite: "C" grade or higher or "Pass" or concurrent enrollment in GEOG 120 or GEOL 104 or equivalent.

3.0 hours laboratory

Get outside and into the field! Explore Earth's physical environment! This course satisfies the science lab requirement, and complements either the Physical Geography lecture course (Geog 120) or the Earth Science lecture course (Geol 104). It examines Earth's atmospheric, hydrospheric, lithospheric, and biospheric systems, and the Earth's seasonal orbit about the Sun. Students will study plate tectonics including faulting, earthquakes, volcanism, and the rock cycle, and will investigate landforms, seasons, weather, climate, and the evolutionary response to climate variation as studied in the natural habitats surrounding Grossmont. Students will use topographic maps, weather maps, satellite loops, compass, clinometer, GPS, weather sensors, and the campus-wide Outdoor Educational ?Rock and Native-Vegetation Zones. (C-ID GEOG 111 and GEOG 120L) (CSU/UC) (AA/AS-B2, CSU-B3, IGETC-5C)

## GEOG-130

### Human Geography: The Cultural Landscape

3 UNITS

3.0 hours lecture

UNDERSTAND CRUCIAL WORLD EVENTS! Course covers the background needed to understand the most pressing issues from around the world. It covers religion, politics, population dynamics, human-environment interactions, globalization, roots of war, & more. (C-ID GEOG 120) (CSU/UC) (AA/AS-D, CSU-D, IGETC-4)

## GEOG-140

### Meteorology: Weather and Climate

3 UNITS

3.0 hours lecture

This physical science course explains the principles that drive daily weather and long-term climate variation. Explanations will focus upon the composition and structure of the atmosphere, the input of solar radiation, the corresponding atmospheric energy budget, the resultant changes in the state of the atmosphere (in terms of temperature, pressure, humidity, winds, air masses, fronts, clouds, and fog), and the average situation as expressed by the climate distribution and its change-over-time. Highlights include explanation of jet streams and winter cyclonic storms, as well as late-summer hurricanes and monsoonal thunderstorms, autumnal Santa Ana-driven fires, and springtime marine layer stability vs Tornado Alley severe weather instability. Special attention is given to real-time weather events and forecasting, especially by way of current weather maps and satellite imagery vs. climatological data. (C-ID GEOG 130) (CSU/UC) (AA/AS-B2, CSU-B1, IGETC-5A)

**GEOG-150****Field Study of the Natural History of the Greater San Diego Region****3 UNITS**

Prerequisite: "C" grade or higher or "Pass" in BIO 110 or 120; or GEOG 120 or 121 or 140; or GEOL 110 or 111; or OCEA 112 or equivalent.

2.0 hours lecture, 3.0 hours laboratory

An exciting, team-taught, interdisciplinary, field-based study of the natural environment of the San Diego region, including related parts of Imperial, Riverside, and Orange Counties. Vans are utilized to visit sites that best illustrate (1) the region's physical environment (including tectonics, geologic history, geomorphology, hydrology, meteorology, climatology, and soils), (2) the evolutionary response to environmental variation (focusing on coastal sage scrub, chaparral, and desert ecosystems), and (3) the interaction of humans with the natural environment. Emphasis on field measurement includes use of GPS, compass, clinometer, maps, the current Jepson plant taxonomy, etc. Four weekends in spring semester only. Overnight campouts required. Students with credit in Geography 150 will not be able to enroll in Biology 150, Geology 150 or Oceanography 150. (CSU/UC)

**GEOG-170****The Geography of California****3 UNITS**

3.0 hours lecture

This course examines the geography of California's diverse physical environment and human landscape that define its uniqueness and exceptionalism - earthquakes, climate, population, agriculture, water, economy, etc. Transfers to CSU and UC. (C-ID GEOG 140) (CSU/UC) (AA/AS-D, CSU-D, IGETC-4)

**GEOG-172****Field Exploration: Colorado Plateau****3 UNITS**

2.0 hours lecture, 3.0 hours laboratory

This week-long course involves lecture and field study of natural processes and features in selected areas of the Colorado Plateau. Lectures en route and on site may include the origin, evolution, and significance of the region's tectonic setting, geomorphic features, hydrology, native plants, and weather. The course may also examine human-environment interactions as well as spatial and temporal variations in areas such as the Grand Canyon, Zion National Park, Sunset Crater, and the Mogollon Rim. Students will learn various field study techniques including map interpretation, map analysis, and the use of field instruments including mineral and rock identification tools, compasses, and global positioning devices (GPS). The course requires field trip travel, including overnight camping and light to moderate hiking. (CSU)

**GEOG-173****Field Exploration: Cascade Range/Modoc Plateau****3 UNITS**

2.0 hours lecture, 3.0 hours laboratory

This week-long course involves lecture and field study of natural processes and features in selected areas of the southern Cascade Range and the Modoc Plateau. Lectures en route and on site may include origin, evolution, and significance of the region's tectonic setting, geomorphic features, hydrology, native plants and weather. The course may also examine human-environment interactions as well as spatial and temporal variations in areas such as Lava Beds National Monument, McArthur-Burney Falls State Park, and Lassen Volcanic National Park. Students will learn various field study techniques including map interpretation, map analysis, and the use of field instruments including mineral and rock identification tools, compasses, and global positioning devices (GPS). The course requires field trip travel, including overnight camping and light to moderate hiking. (CSU)

**GEOG-174****Field Exploration: Basin and Range Province****3 UNITS**

2.0 hours lecture, 3.0 hours laboratory

This week-long course involves lecture and field study of natural processes and features in selected areas of the Basin and Range Province. Lectures en route and on site may include the origin, evolution, and significance of the region's tectonic setting, geomorphic features, hydrology, native plants, and weather. The course may also examine human-environment interactions as well as spatial and temporal variations in areas such as Owens Valley, Death Valley, the Lake Mead area, and Great Basin National Park. Students will learn various field study techniques including map interpretations, map analysis, and the use of field instruments including mineral and rock identification tools, compasses, and global positioning devices (GPS). The course requires field trip travel, including overnight camping and light to moderate hiking. (CSU)

**GEOG-175****Field Exploration: California Coastal Mountains****3 UNITS**

2.0 hours lecture, 3.0 hours laboratory

This week-long course involves lecture and field study of natural processes and features in selected areas of the California coastal mountain region. Lectures en route and on site will examine the origin, evolution, and significance of the region's tectonic setting, geomorphic features, hydrology, native plants, and weather. The course may also examine human-environment interactions as well as spatial and temporal variations in areas such as along the San Andreas fault system, the Coast Ranges, and the Klamath Mountains. Students will learn various field study techniques including map interpretation, map analysis, and the use of field instruments including mineral and rock identification tools, compasses, and global positioning devices (GPS). The course requires field trip travel, often including overnight camping and light to moderate hiking. (CSU)

**GEOG-176****Field Exploration: Sierra Nevada****3 UNITS**

2.0 hours lecture, 3.0 hours laboratory

This week-long course involves lecture and field study of natural processes and features in selected areas of the Sierra Nevada mountains. Lectures en route and on site may include the origin, evolution, and significance of the region's tectonic setting, geomorphic features, hydrology, native plants, and weather. The course may also examine human-environment interactions as well as spatial and temporal variations in areas such as the Yosemite, Sequoia, and Kings Canyon National Parks, the Mammoth Lakes area, and Mono Basin. Students will learn various field study techniques including map interpretation, map analysis, and the use of field instruments including mineral and rock identification tools, compasses, and global positioning devices (GPS). The course requires field trip travel, including overnight camping and light to moderate hiking. (CSU)