

# GEOGRAPHY (GEOG)

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## **GEOG 0001. Physical Geography**

*Units: 3*

Advisory: Eligibility for ENGL C1000

Hours: 54 lecture

Explore Earth's landscape and environmental processes, including the Earth's atmosphere, weather, climate regions, hydrosphere, oceans, clouds, rivers, biosphere, and the Earth landforms, such as mountain building and river systems. Emphasis on the holistic understanding landscape patterns and environmental systems as they relate to location. Also examines human influence on the natural world. (C-ID GEOG 110) (combined with GEOG 1L, C-ID GEOG 115) (CSU, UC)

## **GEOG 0001L. Physical Geography Laboratory**

*Unit: 1*

Prerequisite: Completion with grade of "C" or better or concurrent enrollment in GEOG 1

Hours: 54 laboratory

Earth's physical systems, atmosphere, weather and climate, landforms and fluvial systems; includes map reading and investigating remote sensing, GPS, and Geographic Information Systems (GIS). (C-ID GEOG 111) (combined with GEOG 1, C-ID GEOG 115) (CSU, UC)

## **GEOG 0002. Cultural Geography**

*Units: 3*

Advisory: Eligibility for ENGL C1000

Hours: 54 lecture

Population, migration, religion, languages, agriculture, economic development and exploration of how humans interact with their environment. Analysis of differences of cultures including housing types, agricultural techniques, and popular and folk customs. Investigation of humans as the primary modifier of the physical landscape within the limits of the Earth's natural resources. (C-ID GEOG 120) (CSU, UC)

## **GEOG 0003. Geography of California**

*Units: 3*

Advisory: Eligibility for ENGL C1000

Hours: 54 lecture

An introduction to California's diversified geography including climate, landforms, natural vegetation, and water resources, the cultural landscapes of ethnic diversity, our Native American past, urban and agricultural regions, and the economic challenges of the future. Emphasis on cultural diversity, human alteration of the landscape, contemporary problems and resource competition. (C-ID GEOG 140) (CSU, UC)

## **GEOG 0004. Weather and Climate**

*Units: 3*

Advisory: Eligibility for ENGL C1000

Hours: 54 lecture

The elements and controls of weather and climate - atmospheric heating, the heat budget, air circulation and winds, moisture, clouds, and precipitation; world climates, their classifications; data collection and interpretation, investigate global climates to microclimates. (C-ID GEOG 130) (CSU, UC)

## **GEOG 0005. World Regional Geography**

*Units: 3*

Advisory: Eligibility for ENGL C1000

Hours: 54 lecture

An introduction to the world's major geographic regions; their cultural practices, politics, economics, religions, history and environmental characteristics. Location and analysis of important geographic features including mountains, rivers, countries and major cities of Asia, Australia, Africa, North America, Europe and South America. (C-ID GEOG 125) (CSU, UC)

## **GEOG 0015. Field Geography - Northern California**

*Units: 0.5*

Hours: 13 (7 lecture, 6 laboratory)

Explore valley and mountainous regions of Northern California, such as the Sacramento Valley, northern Coast Range and the southern Cascade mountains; learn about the region's natural history, its culture and past history, its people and industry, human-environmental relationships including land-use, and a sense of place. Some hiking and camping may be required. (CSU)

## **GEOG 0016. Field Geography - Central California Coast**

*Units: 1-2*

Hours: 30 (12 lecture, 18 laboratory) per unit

Explore the central coast of Northern California, including the San Francisco Bay Area, the Monterey Bay and Santa Cruz area surrounded by a redwood and coastal ecosystem; learn about the region's natural history, its culture and past history, its people and industry, human-environmental relationships including land-use, and a sense of place. Some hiking and camping may be required. (C-ID GEOG 160) (CSU)

## **GEOG 0017. Field Geography - Greater Sierra Nevada & Lake Tahoe**

*Units: 1-2*

Hours: 30 (12 lecture, 18 laboratory) per unit

Explore the greater Sierra Nevada region, such as Lake Tahoe and the surrounding Sierra Nevada mountains; learn about the region's natural history, its culture and past history, its people and industry, human-environmental relationships including land-use, and a sense of place. Some hiking and camping may be required. (CSU)

## **GEOG 0028. Independent Study**

*Units: 1-3*

Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

## **GEOG 0085. Application of Geospatial Technologies**

*Unit: 1*

Hours: 18 lecture

Investigation of Geographic Information Systems (GIS) case studies used in industry and government; explores how industry uses GIS with emphasis on natural resource management and watershed analysis. Additional focus on remote sensing, aerial photography, GPS technology. (CSU)

**GEOG 0086. Global Positioning System (GPS) for GIS**

*Unit: 1*

Hours: 18 lecture

Global Positioning System (GPS) theory and techniques, GPS field collection, GIS integration and publishing web maps. Discussion of state-of-the-art hardware and industry-standard software used by GIS professionals to prepare, collect and process spatial data. Data collected during class culminates in a comprehensive GIS mapping project used for analysis. (CSU)

**GEOG 0090. Introduction to Geographic Information Systems (GIS)**

*Units: 4*

Hours: 72 lecture

Study of Geographic Information Systems (GIS) and its applications to spatial data management. Focus on project design, data acquisition, database management, geographic analysis, and map design. Explores how GIS solves spatial problems, such as those in natural resources, earth and life sciences, environmental planning, local government, business, transportation, and other related fields. (C-ID GEOG 155) (CSU, UC)

**GEOG 0091A. Beginning Geospatial Design**

*Unit: 1*

Hours: 18 lecture

Introduction to Geographic Information Systems (GIS) cartographic and database design. Emphasis on GIS and mapping design for practical applications in the fields of natural resource management, disaster mapping, urban planning, business and other related fields. GIS skills include organizing geographic features and attributes, classifying data, labeling, symbology, and proper layout to create maps for GIS analysis. (CSU)

**GEOG 0091B. Intermediate Geospatial Design**

*Unit: 1*

Prerequisite: Completion with a grade of "C" or better or concurrent enrollment in GEOG 90 or 91A

Hours: 18 lecture

Builds on basic principles of beginning GIS Design, creating and editing maps, organizing GIS data for spatial analysis, and producing map layouts. (CSU)

**GEOG 0093. Advanced GIS**

*Units: 4*

Prerequisite: Completion of GEOG 90 with grade of "C" or better

Hours: 72 lecture

Explores advanced topics that build upon previously learned GIS concept and skills. Improve problem solving skills, spatial database organization, modeling, and producing various map outputs. Student completes a research project and assembles a map portfolio. (CSU)

**GEOG 0094. Geospatial Analysis**

*Units: 3*

Prerequisite: Completion with grade of "C" or better or concurrent enrollment in GEOG 90 or 91B

Hours: 54 lecture

Geospatial analysis reveals patterns, relationships, and trends that solve real-world challenges. With GIS tools, students create surface contours, derive slopes, calculate flow direction, draw watersheds, determine line of sight and identify hotspots. GIS modeling and extensions are used. (CSU)

**GEOG 0095. Internship in Geography**

*Units: 0.5-4*

Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)