

# GEOGRAPHY (GEOG)

## **GEOG 0001. Physical Geography**

*Units: 3*

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

A spatial study of the Earth's dynamic physical systems and processes, including the earth's atmosphere, weather, climate regions, hydrosphere; oceans, clouds, rivers; biosphere, and the solid earth including its landforms. Emphasis on the holistic understanding of environmental systems, as they relate to location. Human influence on the natural world examined in an integrative manner using spatial inquiry. Geographic tools used may include maps and visual imagery, remote sensing and computer technologies of modeling, Global Positioning Systems (GPS) and Geographic Information Systems (GIS). (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 1A

Hours: 54 lecture

Diverse patterns of cultural development including population, religion, languages, political systems and other societal characteristics. Analysis of spatial differences of cultures including housing types, city planning, 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 resources. (C-ID GEOG 120) (CSU, UC)

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

*Units: 3*

Advisory: Eligibility for ENGL 1A

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 1A

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 elements and classifications; climate variations and changes. (C-ID GEOG 130) (CSU, UC)

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

*Units: 3*

Advisory: Eligibility for ENGL 1A

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 0011. Urban Geography of San Francisco**

*Unit: 1*

Hours: 30 (12 lecture, 18 laboratory)

Exploration of the cultural, economic and urban geography of San Francisco. This field course provides an introduction to the area's diversified geography including its location, ethnic diversity, urban settlement patterns and an overview of historical and economic regions. Students may be required to walk moderate distances. Additional fees may be required. (C-ID GEOG 160) (CSU)

## **GEOG 0012. Historical Geography of Northern California Communities**

*Unit: 1*

Hours: 30 (12 lecture, 18 laboratory)

This field course explores cultural and historical geography of Northern California communities. Introduction to Northern California's diversified geography including physical landforms, economic diversity, settlement patterns and history of the Northern California communities. (C-ID GEOG 160) (CSU)

## **GEOG 0014. Field Geography of Yosemite and the Eastern Sierra**

*Units: 2*

Hours: 54 (27 lecture, 27 laboratory)

Examination of physical and cultural geography of Yosemite Valley/the Eastern Sierra. This field course emphasizes fluvial and glacial landforms, geological patterns, weather, and climate regions, and the distribution of water resources. Cultural geographies include patterns of Native American and early pioneer settlements, current land use and economic activities. May involve light hiking. Additional fees may be required. (C-ID GEOG 160) (CSU)

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

*Units: 0.5*

Hours: 13 (7 lecture, 6 laboratory)

Investigation of cultural and physical geography of a region in Northern California. This field course provides an introduction to the area's diversified geography including its location, physical landforms, economic diversity, urban settlement patterns and an overview of historical and cultural regions. May involve light hiking. Additional fees may be required. (CSU)

## **GEOG 0016. Field Geography**

*Units: 1-2*

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

Field lecture courses to regions of geographic interest to include physical, cultural, urban and/or historical elements. (C-ID GEOG 160) (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 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, techniques, and case studies, GPS set-up, spatial database organization, field collection, editing, and integration into the GIS. Culminates with final GPS mapping project. (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. 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 fields. (C-ID GEOG 155) (CSU, UC)

**GEOG 0091A. Beginning Arc GIS**

*Unit: 1*

Hours: 18 lecture

Introduction to Geographic Information Systems (GIS) mapping software used to manage, analyze and display spatial information. Create reports and map layouts, query geographic databases, and solve spatial problems. Emphasis on using GIS software for practical applications in the fields of natural resource management, disaster mapping, cartographic design, urban planning, business and other related fields. (CSU)

**GEOG 0091B. Intermediate Arc GIS**

*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 ArcGIS, focusing on queries, managing and preparing data for analysis, creating and editing GIS data, Geodatabases, 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

Builds on Intermediate GIS focusing on advanced technical skills and mapping, such as working with spatial databases, GIS models, vector and raster analysis, cartographic presentation and various 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. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)