

Geography

Geography is the study of the spatial distributions and space relations within the human-environment system composing the surface of the earth. Attention is focused on historic and contemporary human activities within the context of the biophysical and cultural environment, and the emergence of humanity as one of the major agents of change on the earth's surface.

The Associate in Arts Degree option in Geography provides for a liberal education and prepares one for positions in business, government, service in foreign areas and, especially, teaching. When combined with electives in art, music, English, foreign languages, geological sciences and mathematics, geography is excellent preparation for elementary teaching. When combined with other social science fields (anthropology, economics, history, political science, sociology, social psychology, social science), geography is excellent preparation for secondary teaching in social studies. Combining an emphasis in physical-biotic geography with other science fields (biology, chemistry, earth sciences, mathematics, physics, psychology, statistics) is excellent preparation for secondary teaching in science and environmental studies.

Course work in geography, which includes Geographic Information Systems (GIS), prepares students for a wide range of jobs that employ computers to gather, manipulate, analyze and report spatial data. There is rapid growth in the use of GIS in natural resource management, urban planning, marketing, real estate, criminology, emergency services, public health, scientific research and many other areas. GIS courses are also useful for transfer students in geography and other environmental and natural science-oriented disciplines. GIS is an important tool for many other disciplines which use maps and spatial referenced data.

Career Alternatives

Regional or Urban Planner
 Cartographer
 Geographic Information Systems Analyst
 Teacher
 Park Ranger
 Meteorologist
 Land Use Planner
 Climatologist
 Ecologist
 Field Analyst
 Marketing Analyst
 Photographic Interpreter
 Research Analyst
 Travel Agent
 Earth Scientist
 Recreational Resource Planner
 Demographer
 Foreign Area or Intelligence Analyst
 Environmental Scientist
 Realtor
 Regional Systems Analyst
 Surveyor
 Map Librarian
 Resource Economist
 Research Geographer

Research in:

Landforms
 Marketing
 Political Structures
 Soils
 Transportation
 Urban Systems
 Vegetation
 Water

Faculty & Offices

David Elliot, *Chair* (IDC-347, ext. 2481)
 Karl Halbach (R-1, ext. 2470)
 Jan Schultz (R-1, ext. 2313)
 Carl Sundbeck (R-1, ext. 2317)

Emeritus Faculty

George E. Frakes

Degrees Awarded

Associate in Arts Degree, Geography

A.A. Degree: Geography

Department Requirements (25 units)

ANTH 103 — Introduction to Cultural Anthropology <i>or</i> ERTH 111 — Dynamic Earth	3
ERTH 141/GEOG 101 — Physical Geography	3
ERTH 142/GEOG 105 — Economic Geography	3
ERTH 171/GEOG 171 — Introduction to GIS and Maps	2
ERTH 172/GEOG 172 — GIS: Software Applications	2
GEOG 102 — Cultural Geography	3

Controlled Electives (9 Units): ANTH 121, 122, 123, 124, 125, 126; BOT 100, 121 or BIOL 103; EARTH 111, 111L, 112, 113, 114, 115, 116, 121, 131, 132, 133, 141L, 151, 152; ENVIS 115, 116; GEOG 101L.

Note: A course may not be used to satisfy more than one requirement (double-counting is not allowed).

Recommendation: It is strongly recommended that transfer students in Geography take EARTH 141 and 152. In addition, Associate Degree students should take a broad background of electives in the Social Sciences and the Earth Sciences.

College Requirements

For complete information, see "Graduation Requirements" in the *Catalog* Index.

Planning a Program of Study

In order to plan the best possible program of study to meet individual needs, students are encouraged to contact the Geography Department chairperson, faculty adviser, or counselor assigned to the Social Sciences Division. These persons are eager to assist students—and they welcome the opportunity to be helpful.

Preparation for Transfer

Course requirements for transfer vary depending upon the college or university a student wishes to attend. Therefore, it is *most important* for a student to consult with his/her counselor and departmental adviser before planning an academic program for transfer. Information sheets for majors, outlining transfer requirements, are available in the Counseling/Transfer Centers.

Honors & Awards

The Geography faculty selects one student each year to be honored as "Outstanding Student." Students are nominated by members of the faculty and selections are made on the basis of academic scholarship and a student's contribution to our community's understanding of political events.

Special Programs & Courses

Geography Club

Students who are interested in exploring geography with their peers are invited to join the Geography Club. See Mr. Sundbeck for further information.

Advising

Our faculty is eager to provide counseling to students seeking to explore career opportunities which relate to Geography as a major or who simply need further information about any of our course offerings.

Student Participation

We invite student input at any time about needed changes in curriculum or additions to our program. Our course offerings are constantly under review and we welcome student perspective.

Course Descriptions

GEOG 101/ EARTH 141 — Physical Geography (3) F, S — CSU, UC

Skills Advisories: MATH 1 and ENG 103

Course Advisories: Concurrent enrollment in EARTH 141L/GEOG 101L

Introduction to the earth sciences. Interrelationships among the basic elements of the physical environment are examined. Topics include geology, geomorphology, meteorology, climatology, hydrology and agronomy. Required of Geography majors. (CAN GEOG 2 OR CAN GEOG 6 [with GEOG 101L or EARTH 141L])

GEOG 101L/ERTH 141L — Physical Geography Laboratory

(1) F, S — CSU, UC

Co-requisites: GEOG 101/ERTH 141

Skills Advisories: MATH 1 and ENG 103

Laboratory approach to a combination of earth science disciplines, including cartography, geology, geomorphology, meteorology and oceanography. Remote sensing techniques are utilized in 75% of laboratory activities. (CAN GEOG 6 [with GEOG 101 or ERTH 141])

GEOG 102 — Cultural Geography

(3) F, S — CSU, UC

Skills Advisories: Eligibility for ENG 110 or ENG 110H

Cultural geography is an exploration of culture around the world as seen in the patterns of settlement, belief systems, economic development, political units and responses to the physical world. Investigates the characteristics of the countries of the world divided into regional groupings. The dynamics between countries and regions are also explored as they affect the cultural landscape. (CAN GEOG 4)

GEOG 105/ERTH 142 — Economic Geography

(3) F, S — CSU, UC

Skills Advisories: MATH 4 and ENG 103

Designed for students majoring in Geography. Addresses regional patterns of principal economic activities of the world, with an emphasis on economic development and the problems of urbanization, transportation and the environment.

GEOG 106 — Geography of California

(3) F, S — CSU, UC

Skills Advisories: Eligibility for ENG 110 or ENG 110H

Non-technical survey of the wide variety of natural and human environments found in California. It includes a regional study of physical landscapes, economic activities, characteristics of population, cities and rural areas, and current environmental problems. California's interaction with other parts of the U.S. and world is also covered.

GEOG 171/ERTH 171 — Introduction to Geographic Information Systems (GIS) and Maps

(2) F — CSU, UC

Co-requisites: GEOG 172/ERTH 172

Skills Advisories: MATH 4 and ENG 103

Introduction to the techniques, tools and theories used to examine geographic information, with focus on Geographic Information Systems (GIS). Includes the structure, uses, hardware and software requirements, and basic operations of a GIS. Cartography and cartographic design are incorporated, as well as overviews of aerial photography, remote sensing and global positioning systems. Includes uses of GIS software in business, urban planning, resource management and scientific research.

GEOG 172/ERTH 172 — Geographic Information Systems: Software Applications

(2) S — CSU

Skills Advisories: ENG 103

Course Advisories: GEOG 171/ERTH 171

Extensive practice with a GIS package (ArcView or similar GIS software), accompanied by exploration of the range of applications in which GIS is used (resource management, public works, business, planning, scientific research). Covers key skills for operating GIS software packages, including geographical data acquisition, creation, management, analysis and output.

GEOG 175/ERTH 175 — Raster GIS Applications

(2) F, S — CSU

Prerequisites: GEOG 172/ERTH 172

Hands-on introduction to basic raster concepts, using ArcGIS Spatial Analyst extension within the Arc Map environment. The underlying methodology required to solve real world problems is explored through a series of extensive course projects. Key skills in data acquisition, surface creation techniques, map algebra, database design and result reporting are covered.

GEOG 299 — Independent Study in Geography

(1-3) F, S — CSU

Limitation on Enrollment: Six units of Geography with a 3.0 or above GPA; minimum 12 units of course work completed at SBCC with GPA of at least 2.5.

For complete information, see "Independent Study" in the Catalog Index. (*UC transfer limit: 299 computed as Independent Study; please see counselor)