

Geography

Do you dream of exploring far-off places when you look at a map? Do you prefer the window seat on airplanes and buses? Are you captivated by connections between people and the environment? Are you hoping to land a job studying and stewarding Earth's resources? Do you like using high-tech gadgets to gather and report interesting details? If you answered "yes" to any of these questions then geography may be the major for you.

Geography is the science of space and place. Geographers study spatial distributions and relations within Earth's human-environment systems. Attention is focused on historic and contemporary human activities within the context of the biophysical and cultural environments, and the emergence of humanity as one of the major agents of change on Earth's surface.

The Associate in Arts Degree in Geography provides for a liberal education and prepares one for positions in business, government, environmental consulting, resource management, service in foreign areas and teaching.

Many geography courses satisfy GE requirements and appeal to the major and non-major alike. Coursework 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 spatially referenced data.

Career Alternatives

Cartographer
 Climatologist
 Demographer
 Earth Scientist
 Ecologist
 Environmental Scientist
 Field Analyst
 Foreign Area or Intelligence Analyst
 Geographic Information Systems Analyst
 Land Use Planner
 Map Librarian

Marketing Analyst
 Meteorologist
 Park Ranger
 Photographic Interpreter
 Realtor
 Recreational Resource Planner
 Regional or Urban Planner
 Regional Systems Analyst
 Research Analyst
 Research Geographer
 Resource Economist
 Surveyor
 Teacher
 Transportation Analyst
 Travel Agent

Research in:

Agriculture
 Landforms
 Marketing
 Political Structures
 Soils
 Transportation
 Urban Systems
 Vegetation
 Water

Faculty and Offices

Jeffrey W. Meyer, *Chair* (EBS-110, ext. 4270)
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 Jan Anderson, *Information/Assistance*
 (EBS-114, ext. 2315)

Degree Awarded

Associate in Arts Degree, Geography

A.A. Degree: Geography

Department Requirements (26 units)

GEOG 101+/ EARTH 141+ — Physical Geography	3
GEOG 101L/ERTH 141L — Physical Geography Lab	1
GEOG 102 — Cultural Geography	3
GEOG 104 — World Regional Geography	3
GEOG 152/ERTH 152 — Weather and Climate	3
GEOG 171/ EARTH 171 — Introduction to GIS and Maps.....	2
GEOG 172/ EARTH 172 — GIS: Software Applications.....	2

Controlled Electives (9 Units): ANTH 103, ANTH 121 122 123 124 125 126, BIOL 122 **OR** 144 **OR** BOT 121, BIOL 124, EARTH 111+ **OR** 111H+ 112+ **OR** 115+ **OR** ENVS 115+, EARTH 113 **OR** 114, EARTH 116+ **OR** ENVS 116+, EARTH 131 **OR** 132 **OR** 133, EARTH 151+, GEOG 105 **OR** EARTH 142, GEOG 106, GEOG 175 **OR** EARTH 175, ENVS 110+, GLST 101, GLST 102, MATH 117 **OR** 117H.

+Satisfies Area A of the SBCC General Education Requirements if both lecture and lab are completed.

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

Recommendation: Associate Degree students should take a broad background of electives in both the Earth Sciences and Social 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 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 and Awards

The Geography faculty selects one student each year to be honored as "Outstanding Geography 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 geographic events.

Special Programs and Courses

Geography Club

Students who are interested in exploring geography with their peers are invited to join the Geography Club. See Dr. Robinson or Ms. Armstrong 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) — CSU, UC

Skills Advisories: MATH 1 and ENG 103
Course Advisories: Concurrent enrollment in EARTH 141L/GEOG 101L
Hours: 54 lecture

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.

GEOG 101L/ERTH 141L — Physical Geography Laboratory (1) — CSU, UC

Corequisites: GEOG 101/ERTH 141
Skills Advisories: MATH 1 and ENG 103
Hours: 54 lab

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.

GEOG 102 — Cultural Geography**(3) — CSU, UC***Skills Advisories: Eligibility for ENG 110 or ENG 110H**Hours: 54 lecture*

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.

GEOG 104 — World Regional Geography**(3) — CSU, UC***Skills Advisories: Eligibility for ENG 103**Hours: 54 lecture*

Global survey of cultural regions, people and environments. Geographic methodologies are employed to evaluate people, resources, landscapes, livelihoods and economies across eight major geographic regions. The gap between developed and undeveloped economies, the global roles and interconnections of countries and regions, and the conflicting pressures between cultural diversity and globalization are analyzed.

GEOG 105/ERTH 142 — Economic Geography**(3) — CSU, UC***Skills Advisories: MATH 4 and ENG 103**Hours: 54 lecture*

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) — CSU, UC***Skills Advisories: Eligibility for ENG 110 or ENG 110H**Hours: 54 lecture*

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 152/ERTH 152 — Weather and Climate**(3) — CSU, UC***Skills Advisories: MATH 1 and ENG 103**Hours: 54 lecture*

Fundamentals of meteorology, including the nature of the atmosphere, circulation of the atmosphere, air masses and fronts, weather analysis, weather at sea and forecasting. The climates of the earth with California's varied climate and local weather phenomena emphasized, as well as future climatic changes. Required of all Environmental Studies and Marine Science majors.

GEOG 171/ERTH 171 — Introduction to Geographic Information Systems and Maps**(2) — CSU, UC***Corequisites: GEOG 172/ERTH 172**Skills Advisories: MATH 4 and ENG 103**Hours: 36 lecture*

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) — CSU***Corequisites: EARTH 171/GEOG 171 (taken concurrently)**Skills Advisories: ENG 103**Hours: 54 (27 lecture, 27 lab)*

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

**GEOG 175/ERTH 175 — Raster GIS Applications
(2) — CSU**

Prerequisites: GEOG 172/ERTH 172

Hours: 36 lecture

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 results reporting are covered.

**GEOG 299 — Independent Study in
Geography
(1-3) — 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.

Hours: 48-144 lab

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