

# Geography

## Degree

Associate in Arts Degree, Geography

## Program Description

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 G.E. 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	Foreign Area or Intelligence Analyst
Climatologist	Geographic Information Systems Analyst
Demographer	Land Use Planner
Earth Scientist	Map Librarian
Ecologist	Marketing Analyst
Environmental Scientist	Meteorologist
Field Analyst	

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

## Research in

Agriculture	Transportation
Landforms	Urban Systems
Marketing	Vegetation
Political Structures	Water
Soils	

## Faculty and Offices

Michael Robinson, *Chair* (EBS-113, ext. 3741)

Geordie Armstrong (EBS-124)

Elizabeth Gans, *Information/Assistance*  
(EBS-114, ext. 2315)

## AA Degree: Geography

### Department Requirements (26 units)

GEOG 101+/ EARTH 141+ — Physical Geography .....	3
GEOG 101L/ERTH 141L — Physical Geography Lab .....	1
GEOG 102 — Human 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
<i>Controlled Electives (9 Units):</i> ANTH 103, 121 122, 123, 124, 125, 126, BIOL 122+ <b>or</b> 144 <b>or</b> BOT 121, BIOL 124, EARTH 111+ <b>or</b> 111H+, 112+ <b>or</b> 115+ <b>or</b> ENVS 115+, EARTH 113 <b>or</b> 114, 116+ <b>or</b> ENVS 116+, EARTH 131 <b>or</b> 132 <b>or</b> 133, 151+, GEOG 105 <b>or</b> EARTH 142, GEOG 106, 175 <b>or</b> EARTH 175, ENVS 110+, GLST 101, 102, MATH 117 <b>or</b> 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.

## Geography Courses

### **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*

Spatial study of Earth’s dynamic physical systems and processes. Interrelationships among the basic elements of the physical and human environments are examined, including geology, geomorphology, meteorology, climatology and hydrology.

### **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 — Human Geography (3) — CSU, UC**

*Skills Advisories: Eligibility for ENG 110 or 110H or 110GB*

*Hours: 54 lecture*

Interpretation of the cultural elements of the geographic landscape and the study of human’s changing relationship with the environment. Investigates culture and human processes as seen in global patterns of population and migration patterns, language, religion, political and economic systems, urbanization, and human impact on the physical world.

### **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 110H or 110GB*

*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, solar radiation and energy balances, circulation of the atmosphere, air masses and fronts, atmospheric moisture, clouds and fog, precipitation, cyclones, weather analysis and forecasting, climate, and climate change.

**GEOG 152L/ERTH 152L — Weather and Climate Laboratory**

**(1) — CSU**

*Corequisites: GEOG 152/ERTH 152*

*Skills Advisories: Eligibility for ENG 103 and proficiency in MATH 100*

*Hours: 54 lab*

Laboratory approach to topics covered in the Weather and Climate lecture (ERTH 152/GEOG 152). Exercises introduce fundamentals of meteorology, including the nature of the atmosphere, circulation of the atmosphere, air temperature and humidity, and weather analysis and forecasting. Students collect and analyze a variety of environmental data.

**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; see counselor)