

BA IN GEOGRAPHY (GEOGRAPHIC INFORMATION SCIENCE)

Units required for Major: 46

Total units required for BA: 120

Program Description

The Bachelor of Arts in Geography with a concentration in Geographic Information Science (GIScience) emphasizes student development of geospatial skills. Geographic Information Science, cartography, remote sensing, and qualitative and quantitative methods prepare students to tackle any problem with a spatial dimension—from advising an individual firm on good locations for a new branch or supplier to modeling the spread of wildfires across a region to analyzing the global spread of diseases or new technologies.

Note:

- Courses *cannot* double count for the core and the concentration.
- Courses in the concentration core requirements (Geog 109, Geog 110, Geog 150, and Geog 155) must be passed with a minimum grade of C- to satisfy requirements.

Program Requirements

Code	Title	Units
Required Lower Division Core Courses (10 Units)		
GEOG 1	Physical Geography: The Distribution of Natural Phenomena ¹	3
GEOG 2	Cultural Geography ¹	3
GEOG 3	Introduction to Maps and Geographic Technologies	3
GEOG 11	Laboratory in Physical Geography	1
Required Upper Division Core Courses (9 Units)		
GEOG 102	Ideas and Skills in Geography	3
GEOG 118	Earth Transformed	3
GEOG 190	Senior Research Seminar in Geography ¹	3
Geography Core (9 Units)		
Select one course from each of the following three areas:		9
<i>Human Geography</i>		
GEOG 141	Geography of Economic Activity	
GEOG 143	Environmental Hazards and Society	
GEOG 145	Population Geography	
GEOG 147	Urban Geography	
GEOG 148	Urban and Regional Planning	
GEOG 149	Transportation Geography	
<i>Physical Geography</i>		
GEOG 111	Elements Of Meteorology	
GEOG 113	Climate	
GEOG 115	Biogeography	
GEOG 116	Global Climate Change	
GEOG 117	Landforms	
GEOG 161	California's Water Resources	

<i>Regional Geography</i>		
GEOG 121	United States and Canada	
GEOG 125	Geography Of East Asia	
GEOG 127	Geography Of Africa	
GEOG 128	Geography Of Europe	
GEOG 129A	Special Topics in Regional Geography A	
GEOG 129B	Special Topics in Regional Geography B	
GEOG 129C	Special Topics in Regional Geography C	
GEOG 131	California	
Concentration		18
<i>Concentration Core Requirements</i>		
Complete all of the following:		
GEOG 109	Geographic Information Systems	
GEOG 110	Advanced Geographic Information Systems	
GEOG 150	Programming for GIS	
GEOG 155	GIS Data Acquisition and Management	
<i>Concentration Electives</i>		
Select two of the following:		
GEOG 105	Cartography	
GEOG 107	Remote Sensing	
GEOG 151	Programming for GIS II	
GEOG 163	Applied GIS	
GEOG 181	Quantitative Methods in Geography	
GEOG 182	Qualitative Methods in Geography	
GEOG 195A	Geography Internship A	
GEOG 199	Special Problems	
One of GEOG 193A, GEOG 193B, or GEOG 193C		
Total Units		46

¹ Course also satisfies General Education (GE)/Graduation Requirement.

General Education Requirements ¹

Code	Title	Units
Area A: Basic Subjects (9 Units)		
A1	Oral Communication	3
A2	Written Communication	3
A3	Critical Thinking	3
Area B: Physical Universe and Its Life Forms (9 Units)		
B1	Physical Science ²	0
B2	Life Forms	3
B3	Lab (Note: Lab experience to be taken with one of the following: B1, B2 or B5) ²	0
B4	Math Concepts	3
B5	Additional Course (Any B to reach 12 units) - Take upper-division course to complete Area & upper division requirements.	3
Area C: Arts and Humanities (12 Units)		
C1	Arts	3
C2	Humanities	3
C1/C2	Area C Course	3
C1/C2	Area C Course - Take upper-division course to complete Area & upper division requirements.	3
Area D: The Individual and Society (6 Units)		

Area D Course	3
Area D Course ²	0
Area D Course - Take upper-division course to complete Area & upper division requirements.	3
Area E: Understanding Personal Development (3 Units)	
Area E Course	3
Area F: Ethnic Studies (3 Units)	
Area F Course	3
Total Units	42

¹ To help you complete your degree in a timely manner and not take more units than absolutely necessary, there are ways to use single courses to meet more than one requirement (overlap). For further information, please visit the General Education page (<http://catalog.csus.edu/colleges/academic-affairs/general-education/>).
Note: There is no way to list all possible overlaps so please consult with a professional advisor. The Academic Advising Center can be visited online (<http://www.csus.edu/acad/>), by phone (916) 278-1000, or email (advising@csus.edu).

² Required in Major; also satisfies GE.

Graduation Requirements ¹

Code	Title	Units
Graduation Requirements (required by CSU) (6 Units)		
American Institutions: U.S. History		3
American Institutions: U.S. Constitution & CA Government		3
Writing Intensive (WI) ²		0
Graduation Requirements (required by Sacramento State) (12 Units)		
English Composition II		3
Race and Ethnicity in American Society (RE)		3
Foreign Language Proficiency Requirement ³		6

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² Required in Major; also satisfies Graduation Requirement.

³ If not satisfied before entering Sacramento State, it may be satisfied in General Education Area C2 (Humanities). "C- or better required." The alternative methods for satisfying the Foreign Language Proficiency Requirement are described here: <https://www.csus.edu/college/arts-letters/world-languages-literatures/foreign-language-requirement.html> (<https://www.csus.edu/college/arts-letters/world-languages-literatures/foreign-language-requirement.html>)