Geography students at Sacramento State explore Earth's natural and cultural environments using methods from the natural sciences and the social sciences. They study climate, weather, landforms, water resources, and plants and animals, as well as peoples, societies, economies, and cities. These phenomena overlap in intricate ways, giving rise to distinctive places and regions. Geography's approach emphasizes Earth's spatial relationships and patterns, and the processes that govern them, whether found in nature or in human behavior.

Students work with quantitative and qualitative data from a variety of sources, including published censuses and maps, aerial imagery, field and lab work, surveys, and interviews. They use a variety of tools, including Global Positioning Systems (GPS), Geographic Information Systems (GIS), and other computer applications to collect, display, and analyze spatial data. Geography students study and address complex issues, especially those with a human-environment interface, such as climate change, resource management, urban growth and design, globalization, immigration, ethnic identity, and territorial conflict. Geographical understanding is applied at different scales, from the local to the global, and regional expertise is cultivated.

Lower division offerings in physical geography, cultural geography, and geographical techniques introduce students to the discipline. At the upper division level, students can choose among regional classes, topical classes on subjects from meteorology to transportation, and technique classes that include GIS, map making, quantitative methods, remote sensing, and field work. Majors select a concentration in a geographic subfield. Although not required, the department encourages students to take elective courses and/or pursue a minor complementary to their geographical interests. It also encourages and facilitates students going on Education Abroad.

Concentrations
- BA: Geographic Information Systems and Analysis / Human Geography / Metropolitan Area Planning / Physical Geography
- Certificates: Metropolitan Planning / Resource Planning

Special Features
- Numerous internships and jobs in the Sacramento area, including many with state and local government
- Many opportunities for field work in a variety of settings
- A senior project class in which each student conducts his/her own research
- A small major allowing for lots of interaction with faculty and fellow students, including attendance at state and regional professional meetings
- Various pathways to complete the major, providing flexibility and the opportunity to make efficient progress toward graduation

Career Possibilities
Geographer · Cartographer · Climatologist · Resource Scientist · Meteorologist · Geospatial Intelligence Professional · Environmental Scientist · Geographic Information System Specialist · Geographic Consultant · Surveyor · Sustainability Coordinator · Water Resources Analyst · Redevelopment Specialist · Environmental Planner · Energy Analyst · Foreign Area Specialist · Land Economist · Recreation Planner · Locational Analyst · Environmental Education Specialist · Conservationist · Urban Planner · Transportation Planner · Aerial Photo Interpreter · Remote Sensing Specialist · Community Development Specialist · Land Use Planner · Demographer · Cultural Resources Manager · Air Resources Specialist · Real Estate Research Analyst · Pedestrian and Bicycle Advocate · Teacher · Recycling Coordinator · Route Planner · Habitat Manager

Contact Information
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(916) 278-6109
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Faculty
DATEL, ROBIN E.
DILLON, MARSHA J.
GERVAIS, BRUCE R.
KRABACHER, THOMAS S.
ROBERTS, MILES
SCHMANDT, MICHAEL J.
SCHMIDTLEIN, MATHEW C.
WANKET, JAMES A.

Undergraduate Programs
BA Degree in Geography
Units required for Major: 46
Minimum total units required for BA: 120

Note: Every candidate must complete all of the Geography Core and one Concentration.

Required Lower Division Core Courses (10 Units)
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEG 1</td>
<td>Physical Geography: The Distribution of Natural Phenomena</td>
<td>3</td>
</tr>
<tr>
<td>GEG 2</td>
<td>Cultural Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEG 3</td>
<td>Introduction to Maps and Geographic Technologies</td>
<td>3</td>
</tr>
<tr>
<td>GEG 11</td>
<td>Laboratory in Physical Geography</td>
<td>1</td>
</tr>
</tbody>
</table>

Required Upper Division Core Courses (9 Units)
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEG 102</td>
<td>Ideas and Skills in Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEG 118</td>
<td>Earth Transformed</td>
<td>3</td>
</tr>
<tr>
<td>GEG 190</td>
<td>Senior Research Seminar in Geography</td>
<td>3</td>
</tr>
</tbody>
</table>

Geography Core (12 Units)
Select one course from each of the following four areas: 12

Geographic Techniques
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEG 105</td>
<td>Computer Cartography</td>
</tr>
<tr>
<td>GEG 107</td>
<td>Remote Sensing</td>
</tr>
<tr>
<td>GEG 109</td>
<td>Geographic Information Systems</td>
</tr>
</tbody>
</table>
Concentration - Geographic Information Systems and Analysis

Emphasizes student development of geospatial skills. Geographic Information Science, cartography, remote sensing, 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. Students must take GEOG 109 Graphic Information Systems for the concentration.

In addition, students must take at least FOUR courses, with at least one each from Data Analysis and Data Output categories.

GEOG 109 Geographic Information Systems 3
Select four of the following, with at least one each from both groups: 12

Group 1: Data Analysis
GEOG 107 Remote Sensing
GEOG 110 Advanced Geographic Information Systems

Group 2: Data Output
GEOG 107 Remote Sensing
GEOG 109 Geographic Information Systems
GEOG 110 Advanced Geographic Information Systems
GEOG 163 Applied GIS
GEOG 181 Quantitative Methods in Geography
GEOG 193A Field Geography: Urban-Metropolitan
GEOG 193B Field Geography: Suburban-Rural

Total Units 15

It is recommended that students take the following to satisfy their Geographic Techniques core area requirement:

GEOG 193A Field Geography: Urban-Metropolitan 3
GEOG 193B Field Geography: Suburban-Rural 3

Concentration - Human Geography

Examines how diverse human cultures and economies interact with natural environments to create distinctive places with unique achievements, challenges, and conflicts. Students acquire cross-cultural perspectives and knowledge relevant to globalization, international development, energy and other natural resource issues, hazards and disasters, migration and demography, and geopolitical situations.

Select two additional human geography courses from the following: 6
GEOG 141 Geography of Economic Activity
GEOG 145 Population Geography
GEOG 147 Urban Geography
GEOG 148 Urban and Regional Planning
GEOG 149 Transportation Geography
GEOG 161 California’s Water Resources
GEOG 163 Applied GIS

Select two additional regional geography courses from the following: 6
GEOG 121 United States and Canada
GEOG 125 Geography Of East Asia
GEOG 128 Geography Of Europe
GEOG 131 California

Select one additional technique course from the following: 3
GEOG 105 Computer Cartography
GEOG 107 Remote Sensing
GEOG 109 Geographic Information Systems
GEOG 110 Advanced Geographic Information Systems
GEOG 163 Applied GIS
GEOG 181 Quantitative Methods in Geography
GEOG 193A Field Geography: Urban-Metropolitan
GEOG 193B Field Geography: Suburban-Rural

Total Units 15

1 The technique cannot be a field course if a field course was taken for the core.

Concentration - Metropolitan Area Planning

Helps students understand how cities have evolved, with an emphasis on spatial patterns and the role of transportation in structuring settlements. The concentration provides students with skills for designing cities that
address important issues such as sustainability, affordable housing and transportation, a strong civic life, and public health and safety.

GEOG 109 Geographic Information Systems 3
GEOG 148 Urban and Regional Planning 3
GEOG 141 Geography of Economic Activity 3
or GEOG 145 Population Geography
GEOG 147 Urban Geography 3
or GEOG 149 Transportation Geography
Select one of the following technique elective courses: 3
GEOG 105 Computer Cartography
GEOG 107 Remote Sensing
GEOG 110 Advanced Geographic Information Systems
GEOG 163 Applied GIS
GEOG 181 Quantitative Methods in Geography
GEOG 193A Field Geography: Urban-Metropolitan 1
GEOG 193B Field Geography: Suburban-Rural 1
Total Units 15

1 The technique cannot be a field course if a field course was taken for the core.

GEOG 113 can be used to meet the physical geography breadth requirement in the core, but cannot be used in the concentration.

**Minor - Geography**
Total units required for Minor 18
Select two of the following lower division courses: 6
GEOG 1 Physical Geography: The Distribution of Natural Phenomena
GEOG 2 Cultural Geography
GEOG 3 Introduction to Maps and Geographic Technologies
Select a minimum of 9 upper division Geography units, excluding the following:
GEOG 193C Field Geography: Physical
GEOG 194 Geography - Related Work Experience
GEOG 198 Co-Curricular Activities
GEOG 199 Special Problems
Select three additional units in Geography, either lower division or upper division 3
Total Units 18

Courses must be selected in consultation with and approved by a faculty advisor in Geography. A minimum of 6 upper division units must be earned in residence.

**Minor - Geographic Information Systems**
Total units required for Minor 18

**Required Courses (18 Units)**
GEOG 3 Introduction to Maps and Geographic Technologies 3
GEOG 109 Geographic Information Systems 3
GEOG 110 Advanced Geographic Information Systems 3
Select three of the following: 9
GEOG 105 Computer Cartography
GEOG 107 Remote Sensing
GEOG 163 Applied GIS
GEOG 181 Quantitative Methods in Geography
Select three units of upper division GIS coursework from another department with permission of the GIS Minor advisor.
Total Units 18

Courses must be selected in consultation and approved by a faculty advisor in Geography. A minimum of 6 upper division units must be earned in residence.

**Certificate - Pre-Planning**
The Pre-Planning program consists of 15-16 units in addition to the major and culminates in a certificate. Select either the Metropolitan or Resource
Planning Concentration below. No more than two courses may be taken in any one department.

**Metropolitan Planning**

Select five of the following:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 104</td>
<td>Introduction to the United States Economy</td>
<td>3</td>
</tr>
<tr>
<td>ECON 120</td>
<td>Economics and Environmental Degradation</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 109</td>
<td>Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 145</td>
<td>Population Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 147</td>
<td>Urban Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 148</td>
<td>Urban and Regional Planning</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 149</td>
<td>Transportation Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 161</td>
<td>California's Water Resources</td>
<td>3</td>
</tr>
<tr>
<td>GOVT 170</td>
<td>Public Policy Development</td>
<td>3</td>
</tr>
<tr>
<td>GOVT 180</td>
<td>California State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>HIST 163</td>
<td>The City in US History</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 15

**Resource Planning**

Select five of the following:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 120</td>
<td>Economics and Environmental Degradation</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 109</td>
<td>Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 117</td>
<td>Landforms</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 161</td>
<td>California's Water Resources</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 10</td>
<td>Physical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GOVT 170</td>
<td>Public Policy Development</td>
<td>3</td>
</tr>
<tr>
<td>GOVT 180</td>
<td>California State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>HROB 101</td>
<td>The Management of Contemporary Organizations</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 15-16

Students must have an advisor and will not be allowed to proceed in the program without an advisor’s signature. In some cases courses may be accepted that have already been completed. There can be no double counting from among courses used in the major.

**GEOG 1. Physical Geography. The Distribution of Natural Phenomena.**  

General Education Area/Graduation Requirement: Physical Science (B1)  

Introductory study of the distribution over the face of the earth of selected aspects of climate, plant cover, soils, and landforms and of processes and conditions giving rise to these distributions. The use of maps as communicative devices in comparative analysis and study of distribution and processes.

**GEOG 2. Cultural Geography.**  

General Education Area/Graduation Requirement: GE AREA D  

Consideration of the diversity of patterns of land use, settlement and movement established and evolved by humans as a result of the interaction of cultural and physical factors; emphasis on student use of maps and other tools of geographic presentation for analyzing the nature, variation and distribution of cultural features of the earth’s surface.

GEOG 2H. Cultural Geography - Honors.  

Prerequisite(s): Open to Honors students only.  

General Education Area/Graduation Requirement: GE AREA D  

Consideration of the diversity of patterns of land use, settlement and movement established and evolved by humans as a result of the interaction of cultural and physical factors; emphasis on student use of maps and other tools of geographic presentation for analyzing the nature, variation and distribution of cultural features of the earth’s surface.  

Note: This is a special offering designed as part of the G.E. Honors program.

GEOG 3. Introduction to Maps and Geographic Technologies.  

Prerequisite(s): GE AREA D  

Introduction to maps, map concepts, and geographic technologies. Maps are the most effective way to communicate spatial data, and introduces students to the quickly changing world of maps (both hard-copy and digital) and geographic technologies including map and aerial photograph interpretation, spreadsheet operations, introductory statistics, global positioning systems (GPS), Internet mapping, satellite and aerial images, and geographic information systems (GIS) that aid in data collection, analysis, and presentation. Lecture two hours; laboratory two hours.


General Education Area/Graduation Requirement: Physical Science (B1)  

Introduction to meteorological and climatological principles and concepts. These principles will be used to examine severe atmospheric phenomena, including hurricanes, tornadoes, thunderstorms, lightning, destructive winds, severe storms, heat waves, droughts and floods, particularly in relation to human-caused climate change and the effects of these phenomena on humanity.

GEOG 11. Laboratory in Physical Geography.  

Prerequisite(s): GEOG 1; may be taken concurrently.  

General Education Area/Graduation Requirement: Laboratory (B3), Physical Science (B1)  

Makes the ideas and relationships of introductory physical geography more clear by observation and experiment. Use is made of maps, globes, models, meteorological instruments and records, satellite photos and observations of the local scene. Laboratory, three hours.

GEOG 100. Themes In World Geography.  

Prerequisite(s): Junior or Senior class standing or instructor permission.  

Study of the content of geography with a consideration of basic concepts and methods. Emphasis is on patterns and relationships of the elements and manifestations of physical and cultural geography, including both topical and regional discussions.

GEOG 102. Ideas and Skills in Geography.  

Prerequisite(s): GEOG 1 or GEOG 2 or GEOG 3 or GEOG 11.  

Study and discussion of geographic ideas, including the history of the discipline. Introduction to library resources appropriate to geographic inquiry. Practice in geographic descriptive and analytical writing and research. Extensive use of maps. Required of Geography majors in the junior year. Lecture three hours.


Prerequisite(s): GEOG 109 or instructor permission.  

Preparation of maps and diagrams, emphasizing thematic map design using various mapping and design programs. Detailed study of important map projections. Passing score on ELM exam recommended. Lecture one hour, laboratory six hours.
GEOG 107. Remote Sensing. 3 Units
Aerial photographs and scanned satellite images, emphasis on the former. Topics include the electromagnetic spectrum, cameras, films, image geometry as related to planimetric and topographic mapping, multispectral techniques, and interpretation of imagery, emphasizing land use and landforms. Lecture two hours; laboratory three hours.

GEOG 109. Geographic Information Systems. 3 Units
Introduction to GIS, including history and overview of current applications; the nature of spatial data; geographic data structures, acquisition, analysis, and display of geographic data. Lab exercises use various computers and include both raster- and vector-based GIS systems. Lecture two hours; laboratory three hours.

GEOG 110. Advanced Geographic Information Systems. 3 Units
Prerequisite(s): GEOG 109 or instructor permission.
Builds on the introduction to the hardware, software and operations of GIS offered with the previous courses, providing the essentials required by a beginning GIS analyst or applications support specialist. Emphasis will be placed on problem solving strategies in the context of GIS projects.

GEOG 111. Elements Of Meteorology. 3 Units
Prerequisite(s): GEOG 1 or instructor permission.
General Education Area/Graduation Requirement: Further Studies in Area B (B5)
Basic concepts of weather and weather elements: structure and general circulation of the atmosphere, earth’s heat and water balance, precipitation, air masses and fronts, air pollution meteorology. Some micrometeorological concepts with application to air pollution, agriculture, and similar problems.

GEOG 113. Climate. 3 Units
Prerequisite(s): GEOG 1, GEOG 5, GEOL 8, GEOL 10 or ENVS 10 or instructor permission.
General Education Area/Graduation Requirement: Further Studies in Area B (B5)

GEOG 115. Biogeography. 3 Units
Prerequisite(s): GEOG 1 or instructor permission
General Education Area/Graduation Requirement: Further Studies in Area B (B5)
Introduction to the geographic distribution of life. Communities and biomes, changing continents and climates, dispersal, colonization, extinction, life on islands, and past and present human impacts are examined.
Note: Field trip required.
Field trip(s) may be required.

GEOG 116. Global Climate Change. 3 Units
Prerequisite(s): GEOG 1 or instructor permission.
General Education Area/Graduation Requirement: Further Studies in Area B (B5)
Study of past climate change and the techniques with which they are reconstructed. Focus on the various temporal scales at which climate change operates. Spatial variability of past, present and future climate changes. Anthropogenic climate change in the context of natural climate variability.

GEOG 117. Landforms. 3 Units
Prerequisite(s): GEOG 1 or instructor permission.
Study of the surface forms of the land with particular attention to their distribution and to the accompanying distribution of natural forces and processes which have brought the landforms into being. Study of landforms in the context of Quaternary environmental change. Identification and analysis of landforms using maps and other spatial data. Lecture three hours.

GEOG 118. Earth Transformed. 3 Units
Explores the evolving human role in transforming Earth’s physical environments. Topics range from prehistoric extinction’s to modern environmental problems in select regions. Emphasis is placed on wide-ranging effects of resource use and disposal, with particular reference to atmosphere and biological problems and sustainable solutions.

GEOG 121. United States and Canada. 3 Units
Present distribution and historical development of population, land use and industry in the U.S. and Canada in relation to regional variations in the physical environment and cultural heritage.

GEOG 125. Geography Of East Asia. 3 Units
Geographic setting and nature of Far Eastern civilization; origins, development and present outlines of settlement; cultures, resource use, economic structures, population, levels of technological achievement, and land use in China, Japan and Korea.

GEOG 127. Geography Of Africa. 3 Units
Emphasis is on sub-Saharan Africa with consideration given to selected topics such as population problems, industrialization, regional groupings, transportation, and internal and external relationships.

GEOG 128. Geography Of Europe. 3 Units
Survey of Europe with emphasis on its physical environment, contemporary demographic, economic, and ethnic patterns, and the changing political landscape. Consideration will also be given to Europe’s historic and present-day links with other world regions, and to the geographic basis for many of the social, political, economic, and environmental challenges facing contemporary Europe.

GEOG 129A. Special Topics In Regional Geography A. 3 Units
Geographic survey of a selected region with emphasis on its physical environment and selected economic, demographic, political, and cultural patterns. Consideration may include its connection to other world regions and its role in current events. The specific region is identified by the Geography Department at scheduling. This course and GEOG 129B and GEOG 129C may be taken for up to 9 units.

GEOG 129B. Special Topics In Regional Geography B. 3 Units
Geographic survey of a selected region with emphasis on its physical and human geography. Topics may include climate, landforms, vegetation, economics, demographics, culture, and the region’s connection to other world regions and its role in current events. The specific region is identified by the Geography Department at scheduling. This course and GEOG 129A and GEOG 129C may be taken for up to 9 units.

GEOG 129C. Special Topics In Regional Geography C. 3 Units
A selected world region is the focus of this course that geographically surveys the region’s physical and human environment. Potential topics include climate, landforms, vegetation, economics, demographics, culture, and more. The specific region is identified by the Geography Department at scheduling. This course and GEOG 129A and GEOG 129B may be taken for up to 9 units.
GEOG 131. California. 3 Units
Study of landforms, climate, vegetation, population distribution and change, industry, transportation, water, energy, and agriculture in California.

GEOG 141. Geography of Economic Activity. 3 Units
Spatial organization of man's activities related to production, exchange and consumption. Attention is given to resource development and the areal variations of factors affecting it, to concepts of spatial interaction and to spatial aspects of agricultural, industrial and urban land use. An examination of problems related to regional economic development. Changing perceptions of spatial organization of economic activities is also considered. Emphasis is on both theoretical framework and case study applications.

GEOG 143. Environmental Hazards and Society. 3 Units
Focuses on how a place's social systems and physical systems intersect to create hazards. Considers the development of various theoretical approaches to hazards; risk perception and societal responses to hazard events; the history of U.S. disaster response; and approaches to risk/vulnerability assessment.

GEOG 145. Population Geography. 3 Units
General Education Area/Graduation Requirement: GE AREA D
Spatial patterns of population numbers and characteristics; migration and spread of ideas; potential for economic and cultural developments.

GEOG 147. Urban Geography. 3 Units
Consideration of cities as centers of human activity from the rise of urban life in the Old and New Worlds to the present day patterns of metropolis and megalopolis. The functions and interactions of cities in Earth's limited space and on Earth's limited resources are studied historically and crossculturally. Also examined are changing perceptions of the urban phenomenon and attempts to enhance the quality of urban life.

GEOG 148. Urban and Regional Planning. 3 Units
Introduction to the theory and practice of urban and regional planning. Topics include the history of planning, the development of comprehensive and land use plans, growth management, and transportation and environmental planning. Includes guest speakers from the planning community as well as the opportunity to work on a project with a community organization or government agency to put into practice what is discussed in class.

GEOG 149. Transportation Geography. 3 Units
Prerequisite(s): GEOG 141, GEOG 147, or GEOG 148 or instructor permission.
Explores the geography of transportation using both theory and applications, quantitative and qualitative methods. Topics include the history and economic importance of transportation systems for all major modes; their political, social, and environmental aspects; and basic analytical methods, including accessibility dynamics, network analysis, and spatial interaction models. Focus will be on the U.S., with frequent reference to local issues, though material will be drawn on from around the world.

GEOG 161. California's Water Resources. 3 Units
Study of the location and nature of the state's surface and underground water, including development by government agencies, water needs of cities, farms, recreation and wildlife, implications of water rights, water marketing and conservation, and management of floods, droughts and pollution.

GEOG 163. Applied GIS. 3 Units
Prerequisite(s): GEOG 109.
Introduction to developing a GIS project, including planning, database research, proposal writing, analysis and evaluation. Lecture 2 hours; Laboratory 3 hours.

GEOG 181. Quantitative Methods in Geography. 3 Units
Introduction to techniques useful in the analysis of spatial distributions and other geographic phenomena: basic aspatial descriptive and inferential techniques, correlation, regression, and spatial inferential techniques.

GEOG 190. Senior Research Seminar in Geography. 3 Units
Prerequisite(s): GEOG 1, GEOG 2, GEOG 3, GEOG 102; senior standing, and GWAR certification before Fall 09; or WPJ score of 80+; or 3-unit placement in ENGL 109M or ENGL 109W; or 4-unit placement in ENGL 109M or ENGL 109W and co-enrollment in ENGL 109X; or WPJ score 70 or 71 and co-enrollment in ENGL 109X; instructor permission.
General Education Area/Graduation Requirement: Writing Intensive Graduation Requirement (WI)
Writing-intensive capstone course requiring students to complete independent research projects displaying their mastery of geography's content and methods. Projects undertaken in a given semester share a common thematic and/or regional focus. Students use bibliographic, field, spatial analytic, graphic, and verbal skills. Context for projects is provided by a review of the recent history of the discipline. Lecture/discussion three hours.

GEOG 192A. Geography Field Experience A. 1 - 2 Units
Prerequisite(s): one geography course or instructor permission.
A particular geographical area is explored and studied via beginning-level field observation. Emphasis may be placed on physical features, cultural features, or both. Credit/No Credit

GEOG 192B. Geography Field Experience B. 1 - 2 Units
Prerequisite(s): one geography course or instructor permission.
A particular geographical area is explored and studied via intermediate-level field observation. Emphasis may be placed on physical features, cultural features, or both. Credit/No Credit

GEOG 192C. Geography Field Experience C. 1 - 2 Units
Prerequisite(s): one geography course or instructor permission.
A particular geographical area is explored and studied via advanced-level field observation. Emphasis may be placed on physical features, cultural features, or both. Credit/No Credit

GEOG 193A. Field Geography: Urban-Metropolitan. 3 Units
Prerequisite(s): Instructor permission
Examines the internal structure and external relations of Sacramento as a metropolitan center and of nearby urban communities through field observation and exercises. Emphasis is placed on mapping and interviewing as ways of gaining useful information on urban patterns.

GEOG 193B. Field Geography: Suburban-Rural. 3 Units
Prerequisite(s): Instructor permission
Examines competition for land use in suburban Sacramento as urban sprawl overruns less intensive uses. Small towns in the lower Sacramento Valley also examined. Group field trips, interviews, field mapping and discussions. Field trip(s) may be required.
GEOG 193C.  Field Geography: Physical.  3 Units
Prerequisite(s): Instructor permission.
Survey of selected areas with systematic examination of elements of the
natural landscape. Group field trips and individual preparation of reports
and consultation with instructor.
Field trip(s) may be required.

GEOG 194.  Geography - Related Work Experience.  6 - 12 Units
Prerequisite(s): Consent of supervising faculty and Department Chair.
Supervised employment in a company or agency doing geography-
related work, arranged through the Department of Geography and
the Cooperative Education Program office. Requires preparation of
application packet, completion of a 3-6 month full- or part-time work
assignment, and a written report. Units not applicable to the Geography
major.
Credit/No Credit

GEOG 195A.  Geography Internship A.  1 - 3 Units
Supervised work experience at the beginning level in an approved
professional environment, working with professionals in public or private
organizations. Supervision supplied by a geography faculty member and
on-site supervisor. Placements require 4-12 hours per week, depending on
units.
Note: Open to all Geography majors and minors with permission
of supervising faculty member and Department Chair. GEOG 195A,
GEOG 195B, and GEOG 195C may be taken for up to 6 total units.
Credit/No Credit

GEOG 195B.  Geography Internship B.  1 - 3 Units
Supervised work experience at an intermediate level in an approved
professional environment, working with professionals in public or private
organizations. Supervision supplied by a geography faculty member and
on-site supervisor. Placements require 4-12 hours per week, depending on
units.
Note: Open to all Geography majors and minors with permission
of supervising faculty member and Department Chair. GEOG 195A,
GEOG 195B, and GEOG 195C may be taken for up to 6 total units.
Credit/No Credit

GEOG 195C.  Geography Internship C.  1 - 3 Units
Supervised work experience at an advanced level in an approved
professional environment, working with professionals in public or private
organizations. Supervision supplied by a geography faculty member and
on-site supervisor. Placements require 4-12 hours per week, depending on
units.
Note: Open to all Geography majors and minors with permission
of supervising faculty member and Department Chair. GEOG 195A,
GEOG 195B, and GEOG 195C may be taken for up to 6 total units.
Credit/No Credit

GEOG 199.  Special Problems.  1 - 3 Units
Prerequisite(s): Approval of the faculty sponsor and Department Chair.
Individual projects or directed reading.
Note: Open only to students competent to carry on individual work.
Credit/No Credit

GEOG 199A.  Geography Special Problems A.  1 - 3 Units
Prerequisite(s): Approval of the faculty sponsor and department chair.
Individual projects or directed reading at a beginning level. Graded (CR/
NC Available) Units: 1.0 - 3.0
Note: Open only to students competent to carry on individual work.
Credit/No Credit

GEOG 199B.  Geography Special Problems B.  1 - 3 Units
Prerequisite(s): Approval of the faculty sponsor and department chair.
Individual projects or directed reading at an intermediate level, ordinarily
taken following completion of GEOG 199A. Graded (CR/NC Available)
Units: 1.0 - 3.0
Note: Open only to students competent to carry on individual work.
Credit/No Credit

GEOG 199C.  Geography Special Problems C.  1 - 3 Units
Prerequisite(s): Approval of the faculty sponsor and department chair.
Individual projects or directed reading at an advanced level. Ordinarily
taken following completion of GEOG 199A and GEOG 199B. Graded (CR/
NC Available) Units: 1.0 - 3.0
Note: Open only to students competent to carry on individual work.
Credit/No Credit

GEOG 299.  Special Problems.  1 - 3 Units
Prerequisite(s): Approval of the faculty sponsor and Department Chair.
Individual projects or directed reading.
Note: Open only to students competent to carry on individual work.
Credit/No Credit

GEOG 198.  Co-Curricular Activities.  1 - 6 Units
Prerequisite(s): Consent of faculty Sponsor and department chair.
Co-curricular activities related to subject matter and concerns of the
Geography Department, e.g. students may qualify for credit by providing
special tutorial assistance to EOP students or others in introductory
courses.
Note: May be repeated for up to 6 units of credit.
Credit/No Credit