Department of Geography and Environmental Studies

Department of Geography and Environmental Studies
Social and Behavioral Sciences Building, Room 327J
(909) 537-5519 Department of Geography and Environmental Studies (http://geog.csusb.edu)

Bachelor of Arts
- Environmental Studies - Track A
- Environmental Studies - Track B
- Geography - Geography Option
- Geography - Global Studies Option

Minor
- Environmental Studies
- Geography
- Geography - Global Studies

Certificate Programs
- Geographic Information Systems
- Urban Planning (not offered 2017-18 Academic Year)
- Environmental Studies

Honors in the Major
Students majoring in environmental studies are eligible to receive department honors in environmental studies at graduation if the following conditions are met:

1. At least one-half of the course work required by the major is completed at this university;
2. At least a 3.5 grade point average in the major, both at this university and overall;
3. An overall undergraduate grade point average of 3.0 (“B”) or better;
4. Completion of GEOG 597.

Students interested in receiving this recognition must initiate the process by making a formal application with the Geography Department administrative support coordinator.

Geography and Global Studies

Geography is concerned with the spatial variations and interrelationships between the natural and cultural features of the earth. Geographers study the earth primarily as the home of humans. As an approach to knowledge, geography forms an interdisciplinary bridge between the physical and cultural worlds, examining both humans and their environment. As a synthesizing discipline, geography is an especially attractive major for liberal arts and science students. Its body of theory and methodologies provides an analytic technique applicable to a wide range of questions. For students planning to end their formal education with a bachelor's degree, it also provides both the regional and world perspective required of responsible citizens. For the same reasons, geography is especially valuable for those who plan to do graduate work. Geography offers job opportunities in teaching, business, government, armed forces, conservation and water resources, planning and market research, geographic information systems (GIS) and international organizations.

Global Studies promotes an understanding of how globalization impacts the physical and human environment. The B.A degree program option is an interdisciplinary program that includes courses from a broad range of Social Science programs. It focuses on three primary concentrations: socio-cultural, political-economical and sustainability. The goal is to better understand how the social, cultural, political and economic spheres of human life effect, and are effected by, globalization.

Students who can meet the qualifications are also encouraged to participate in the California State University's International Programs (http://bulletin.csusb.edu/csu-system/#internationalprogramstext). Such participation will not only contribute immediately to the student's geographical knowledge and degree program, but may have longer-term educational and career benefits as well.

Departmental Honors
Students majoring in geography and global studies are eligible to receive honors in geography at graduation if they have:

1. Completed at least one-half of the course work required by the major at this university;
2. Earned a grade point average of at least 3.5 in the major, both at this university and overall;
3. Earned an overall undergraduate grade point average of 3.0 or better;
4. Completed GEOG 597.

To accomplish its principal objective of promoting an understanding of the interaction of human with their environment, this interdisciplinary degree program includes courses primarily from the natural sciences and social sciences.

Major requirements from the natural sciences develop fundamental principles about the composition and functioning of the earth's ecosystems, principles deemed essential to a sound working knowledge of the environment. Course offerings from the social sciences assess the impact of humans upon the environment and the possibility of creating different environments.

The program is designed for students who desire either to focus on a study of the environment as part of a broader liberal arts curriculum or to prepare for an environmentally related career or graduate school. Professional opportunities for graduates include a wide range of positions in public agencies responsible for developing and enforcing environmental controls, and in business, industry and nonprofit organizations which need qualified individuals to communicate environmental information and to assist in compliance with environmental regulations. Additional opportunities are available in conjunction with other programs of study, such as environmental law, environmental health, education and public administration.
Students interested in receiving this recognition must initiate the process by making a formal application with the Geography Department Administrative Support Coordinator.

**Current Faculty**

Andrew Bodman, Professor  
Ph.D. 1978, The Ohio State University

Brett Goforth, Assistant Professor  
Ph.D., 2009, University of California, Riverside

Kevin Grisham, Associate Professor  
B.A. 1997, California State University, San Bernardino  
M.A. 2005, Ph.D. 2009, University of California, Riverside

Rajrani Kalra, Associate Professor  
M.A. 2003, University of Akron  
Ph.D. 2007, Kent State University

Michal Kohout, Professor  
B.A. 1993, University of Western Ontario  
M.A. 1996, Southwest Texas State University  
Ph.D. 2004, Clark University

Norman Meek, Professor, Chair  
B.A. 1982, University of Kansas  
M.A. 1984, Michigan State University  
Ph.D. 1990, University of California, Los Angeles

Bo Xu, Associate Professor  
B.S. 1998, Beijing Normal University  
M.S. 2001, East China Normal University  
M.S. 2007, Ph.D. 2008, University of Georgia

Jenny Zorn, Professor, Associate Provost  
B.A. 1980, Flagler College  
M.A. 1982, Ph.D. 1990, Ohio State University

**Emeriti**

Jeffrey D. Hackel, Professor

Theodore R. McDowell, Professor

James Mulvihill, Professor

Richard Rowland, Professor

**Undergraduate Degrees**

**Bachelor of Arts**

- Environmental Studies  
  - Track A
  - Track B

- Geography with options in:  
  - Geography

**Minors**

- Environmental Studies
- Geography
- Geography - Global Studies

**Certificate Programs**

- Geographic Information Systems
- Urban Planning  
  (not offered in the 2017-18 Academic Year)

**Courses**

**GEOG 100. Introduction to Human Geography. 4 Units.**  
(GE=D4)  
Introduction to the global patterns and dynamics of such human activities as population growth and movements, politics, religion, language, urbanization, industrialization, and economic development. The course emphasizes the processes that produce regional and environmental differences.

**GEOG 103. Physical Geography. 5 Units.**  
Prerequisites: satisfactory score on the Entry Level Mathematics examination  
(GE=B.3)  
Systematic approach to the physical environment of man stressing the relationships between the atmosphere, land, life forms and water. Four hours lecture and three hours laboratory. Materials fee required.

**GEOG 104. Physical Geography Laboratory. 1 Unit.**  
Prerequisites: satisfactory score on the Entry Level Mathematics examination, the transferable equivalent of Introductory Physical Geography lecture, and permission of department  
Physical geography laboratory course designed to supplement a physical geography lecture course taken elsewhere without an accompanying laboratory. Materials fee required.

**GEOG 201. Map Interpretation. 4 Units.**  
Introduction to maps as a communication tool, focusing on map fundamentals, such as scale, symbols and design, as well as using maps as a practical device for navigation and spatial measurement. Participation in a weekend outdoor map reading exercise is required.  
Formerly GEOG 300.
GEOG 202. Introduction to Geographic Information Systems and Cartography. 5 Units.
An introduction to the fundamental principles and theories involved in working with geographic data within a geographic information system (GIS). Basic mapping concepts of scale, generalization, classification, map projections, coordinate systems, and spatial analysis are covered. Four hours lecture and three hours laboratory. Materials fee required. Formerly GEOG 301.

GEOG 300. Geography in the Elementary and Middle School Classroom. 4 Units.
Introduces liberal studies students to geography in the California/Social Science Standards. Students learn to integrate geographic principles and theories with the other social sciences. May not be counted toward fulfillment of requirements in the geography major or minor.

GEOG 302. Geography of California. 4 Units.
Systematic and regional study of California geography stressing general geographical concepts to explain sequential human settlement patterns in relation to the natural environment.

GEOG 303. Introduction to Global Studies. 4 Units.
Prerequisites: SSCI 165 or consent of instructor
Examination of the causes and consequences of globalization, including climate change, migration, cultural conflicts, and economics.

GEOG 304. Field Methods in Geography. 4 Units.
Prerequisites: GEOG 103 and 201
Introduction to methods and techniques for the acquisition of geographic data from direct field measurement and observations. One hour lecture and six hours field activity. Materials fee required.

GEOG 305. Geographic Statistics and Research Methods. 4 Units.
Introduction to basic statistical concepts and quantitative methods used in geography, including spatial analysis and the writing of geographic research reports. A computer statistical program is used.

GEOG 306. Remote Sensing of the Environment. 4 Units.
Prerequisites: GEOG 103 or consent of instructor
Interpretation of environmental phenomena recorded by satellite and aerial multispectral sensing systems, especially conventional aerial photography.

GEOG 307. Transportation Issues and Development. 4 Units.
Transportation geography using both theory and applications. Topics include historical, economic, political, social and environmental aspects of road, rail, water, and air transportation. Examples will be global but will largely focus on the United States and the Inland Empire.

GEOG 308. Advanced Geographic Information Systems. 5 Units.
Prerequisites: GEOG 202 or consent of instructor
Advanced study of the principles and theories involved when working with geographic information systems (GIS). Emphasis on the input, storage, manipulation, and analysis of geographic data. Four hours lecture and three hours laboratory. Materials fee required. Formerly GEOG 401.

GEOG 311. The Dynamic Earth. 5 Units.
Prerequisites: a college-level chemistry course and a college-level physics course, or consent of instructor
Tailored to students intending to teach grades K-8. A systematic survey of Earths physical environment, including the spatial and temporal interrelationships among the Earths atmosphere, oceans and land. Students will be introduced to selected methods and tools of scientific inquiry and analysis used in the earth and space sciences. May not be counted towards fulfillment of requirements in the geography major or minor. Four hours lecture and three hours laboratory.

GEOG 312. Geography of the Developing World. 4 Units.
Geographic exploration of the developing regions of the world, including economic, political, social, and cultural issues. Emphasis will be on comparative analysis and spatial distribution.

GEOG 313. Geography of the Developed World. 4 Units.
Geographic exploration of the developed regions of the world, including economic, political, social, and cultural issues. Emphasis will be on comparative analysis and spatial distribution.

GEOG 315. Spatial Analysis. 4 Units.
Prerequisites: GEOG 202 or consent of instructor
Concepts and applications of modern spatial analysis, information systems and spatial statistics.

GEOG 320. Geography of Social Issues. 4 Units.
Description and analysis of the causes of socially derived geographic variation in the United States and the world. Emphasis is on political, economic, gender and ethnic group characteristics and interactions.

GEOG 322. United States and Mexico Border Issues. 4 Units.
Introduction to U.S.-Mexico border issues, including the social interactions and processes that distinguish the area. Analysis will focus on the characteristics of everyday life as shaped by political, economic, and cultural issues from inside and outside the region.

GEOG 323. North America. 4 Units.
Systematic examination of the physical and cultural geography of North America, stressing the relationships between the natural environment and human settlement and economic patterns.

GEOG 325. Political Geography. 4 Units.
Prerequisites: GEOG 100
Examination of the interactions between political processes, space, place and environment at geographic scales ranging from international to local. Topics include nation-state formation, geopolitics, imperialism and colonialism, the environment, elections and representation and the role of the contemporary state. Formerly a topic under GEOG 390.

GEOG 341. Military Geography. 4 Units.
Examination of terrain, climate, and other physical geography factors that influence military operations. Formerly a topic under GEOG 390.

GEOG 350. Conservation and Natural Resources. 4 Units.
Principles of resource utilization and ecology as they involve human development and politico-economic policy.
GEOG 360. Weather and Climate. 4 Units.
Prerequisites: GEOG 103 or consent of instructor
An examination of atmospheric processes and the relationships between the atmosphere, hydrosphere, lithosphere and biosphere that influence local, regional and global patterns of weather and climate. Relationships between human activity, vegetation patterns, weather and climate will be discussed.

GEOG 365. Climate Change. 4 Units.
Prerequisites: GEOG 103 or GEOL 101
An examination of past climates, modern climates and evidence for future climate change. Students are required to attend two weekend field trips. Formerly a topic under GEOG 390.

GEOG 370. Landscape Analysis. 4 Units.
Prerequisites: BIOL 100 or HSCI 120; and GEOG 103; or consent of instructor
Analysis of the earth as a mosaic of varying size habitat patches. Principles of geography, ecology, and biogeography are used to examine the characteristics and processes that work within and between patches. The application of landscape concepts to land use planning will be discussed, as will methods for determining spatial patterning. Formerly GEOG 460.

GEOG 390. Selected Topics in Geography. 4 Units.
Examination of selected topics of current interest in geography. May be repeated for credit as topics change.

GEOG 392. Selected Topics in Geography. 2 Units.
Examination of selected topics of current interest in geography. May be repeated for credit as topics change.

GEOG 402. Geographic Information Systems Applications. 5 Units.
Prerequisites: GEOG 202 or consent of instructor
An examination of case studies in which geographic information systems (GISs) have been used to address environmental problems. Individual and/or group projects required. Four hours lecture and three hours laboratory. Materials fee required. Formerly a topic under GEOG 390.

GEOG 406. Digital Image Processing. 4 Units.
Prerequisites: GEOG 306 or consent of instructor
Geographic manipulation and interpretation of multispectral scanner data from satellites, radar and other digital image sources with the aid of computers.

GEOG 415. Urban Planning and Land Development. 4 Units.
Comprehensive urban planning and land use controls. Emphasis on impact of urban development in North America.

GEOG 420. Geography of Economic Activity. 4 Units.
Analysis of concepts of location, interaction and regionalization as they apply to economic activity. Special emphasis on economic growth and modernization.

GEOG 440. Understanding the City. 4 Units.
A study of the physical and social attributes of the North American city. Emphasis is placed on urban planning and policy making.

GEOG 470. Hydrology and Water Resources. 4 Units.
Prerequisites: GEOG 103 or consent of instructor
Basic principles of hydrology: relationships between atmospheric, surface and groundwater phenomena; streamflow and flood prediction; water supply and quality.

GEOG 480. Geomorphology. 4 Units.
Prerequisites: GEOG 103 or GEOL 101 or consent of instructor
Landforms and the processes that create them. Multi-day field trip required.

GEOG 500. Senior Seminar. 2 Units.
Prerequisites: senior standing in geography or environmental studies and permission of Geography Department
An assessment of academic progress, required of all geography and environmental studies majors, will be made by assembling an academic portfolio of completed coursework. Graded credit/no credit.

GEOG 575D. Internship in Geography. 4 Units.
Prerequisites: consent of instructor and department
Supervised work in public or private organizations emphasizing practical applications of geographic concepts. Approximately 120 hours are required for four units of credit and at least 150 hours are required for five units of credit. May be taken only once for credit. Graded credit/no credit.

GEOG 575E. Internship in Geography. 5 Units.
Prerequisites: consent of instructor and department
Supervised work in public or private organizations emphasizing practical applications of geographic concepts. Approximately 120 hours are required for four units of credit and at least 150 hours are required for five units of credit. May be taken only once for credit. Graded credit/no credit.

GEOG 595B. Independent Study. 2 Units.
Prerequisites: a minimum overall grade point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken
A total of eight units in GEOG 595 may be applied toward the major and graduation.

GEOG 595C. Independent Study. 3 Units.
Prerequisites: a minimum overall grade point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken
A total of eight units in GEOG 595 may be applied toward the major and graduation.

GEOG 595D. Independent Study. 4 Units.
Prerequisites: a minimum overall grade point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken
A total of eight units in GEOG 595 may be applied toward the major and graduation.

GEOG 597. Senior Honors Project. 4 Units.
Original research in Geography and Environmental Studies, culminating in a significant research report. Enrollment limited to students whose formal application for departmental honors is approved. Graded credit/no credit.
GEOG 600. Proseminar in Geography. 4 Units.
Prerequisites: consent of instructor
Survey of the concepts and ideas that geographers employ to study, describe and analyze globalization.

GEOG 605. Spatial Data Presentation. 4 Units.
An integrated study of geographic techniques used in land use planning, including: computer graphics, geographic information systems, and remote sensing. Three hours lecture and two hours laboratory. Materials fee required.

GEOG 610. Military Geography for National Security. 4 Units.
Examination of the terrain, climate and other physical geography factors that affect national security.

GEOG 615. Foundations of Planning I. 4 Units.
An intensive study of the social and ethical bases of urban planning, and the fundamental skills and understanding needed by urban planners. The course will include an overview of the legal, economic and political bases of urban planning.

GEOG 616. Foundations of Planning II. 4 Units.
Standards and issues associated with the development of general planning, zoning ordinances, and land subdivision are examined.

GEOG 617. Planning Within the Local Power Structure. 4 Units.
Examination of the interrelationships between local urban power structures and modes of decision-making and planning, with the purpose to explore ways in which the professional urban planner can work effectively.

GEOG 621. Seminar in the Geography of Latin America. 4 Units.
A geographic perspective of Latin America, including such topics as population, economic development, environment and foreign relations.

GEOG 650. Environmental Issues of Land Management. 4 Units.
Study of multiple-use management of non-urban land by local government. Emphasis will be placed on recreation, mining, and the maintenance of open space, biotic habitat, and air and water quality. The California Environmental Quality Act (CEQA) and related issues will also be addressed.

GEOG 680. Advanced Demographic Analysis. 4 Units.
Advanced study of demographic techniques with particular emphasis on those relevant to urban planning. An examination of various data sources is included.

GEOG 695C. Planning Colloquium. 2 Units.
Subdivision Review and Site Design. Discussion of the application of planning techniques in public and private agencies.

GEOG 695D. Supervised Graduate Study in Geography. 4 Units.
Prerequisites: classified standing in the master's program and consent of instructor
Original individual research in geography or environmental studies; to be conducted under the direct supervision of a faculty member of the student's committee, and if desired in collaboration with other members of the student's master's committee.

GEOG 695E. Supervised Graduate Study in Geography. 5 Units.
Prerequisites: classified standing in the master's program and consent of instructor
Original individual research in geography or environmental studies; to be conducted under the direct supervision of a faculty member of the student's committee, and if desired in collaboration with other members of the student's master's committee.

GEOG 696A. Graduate Project. 1 Unit.
Prerequisites: classified standing and consent of instructor
Original individual research in geography and environmental studies, to be conducted under the guidance of the student's graduate advisor, and if desired, in collaboration with other members of the student's master's committee. May be repeated for credit for a maximum of 12 units. Graded Credit/No Credit.

GEOG 696B. Graduate Project. 2 Units.
Prerequisites: classified standing and consent of instructor
Original individual research in geography and environmental studies, to be conducted under the guidance of the student's graduate advisor, and if desired, in collaboration with other members of the student's master's committee. May be repeated for credit for a maximum of 12 units. Graded Credit/No Credit.

GEOG 696C. Graduate Project. 3 Units.
Prerequisites: classified standing and consent of instructor
Original individual research in geography and environmental studies, to be conducted under the guidance of the student's graduate advisor, and if desired, in collaboration with other members of the student's master's committee. May be repeated for credit for a maximum of 12 units. Graded Credit/No Credit.

GEOG 696D. Graduate Project. 4 Units.
Prerequisites: classified standing and consent of instructor
Original individual research in geography and environmental studies, to be conducted under the guidance of the student's graduate advisor, and if desired, in collaboration with other members of the student's master's committee. May be repeated for credit for a maximum of 12 units. Graded Credit/No Credit.

GEOG 696E. Graduate Project. 5 Units.
Prerequisites: classified standing and consent of instructor
Original individual research in geography and environmental studies, to be conducted under the guidance of the student's graduate advisor, and if desired, in collaboration with other members of the student's master's committee. May be repeated for credit for a maximum of 12 units. Graded Credit/No Credit.
GEOG 696F. Graduate Project. 6 Units.
Prerequisites: classified standing and consent of instructor
Original individual research in geography and environmental studies, to be conducted under the guidance of the student's graduate advisor, and if desired, in collaboration with other members of the student's master's committee. May be repeated for credit for a maximum of 12 units. Graded Credit/No Credit.

GEOG 698A. Continuous Enrollment for Graduate Candidacy Standing. 1 Unit.
Prerequisites: advancement to candidacy and approval of program graduate coordinator or, if an interdisciplinary studies major, consent of the Dean of Graduate Studies
Independent study leading to completion of requirements (other than course work) for the master's degree. To retain classified standing in the master's program, a student must enroll in 698 each quarter until the project or thesis is accepted or the comprehensive examination passed. Students who enroll in 698 through the university have full use of all university facilities. See Culminating Experience: Exam, Thesis, or Project in Graduate Degree and Program Requirements section of the Bulletin of Courses. 698 is a variable unit course, see fee schedule in the Financial Information section of the Bulletin of Courses. Earned units are not degree-applicable nor will they qualify for financial aid.

GEOG 698B. Continuous Enrollment for Graduate Candidacy Standing. 2 Units.
Prerequisites: advancement to candidacy and approval of program graduate coordinator or, if an interdisciplinary studies major, consent of the Dean of Graduate Studies
Independent study leading to completion of requirements (other than course work) for the master's degree. To retain classified standing in the master's program, a student must enroll in 698 each quarter until the project or thesis is accepted or the comprehensive examination passed. Students who enroll in 698 through the university have full use of all university facilities. See Culminating Experience: Exam, Thesis, or Project in Graduate Degree and Program Requirements section of the Bulletin of Courses. 698 is a variable unit course, see fee schedule in the Financial Information section of the Bulletin of Courses. Earned units are not degree-applicable nor will they qualify for financial aid.

GEOG 698C. Continuous Enrollment for Graduate Candidacy Standing. 3 Units.
Prerequisites: advancement to candidacy and approval of program graduate coordinator or, if an interdisciplinary studies major, consent of the Dean of Graduate Studies
Independent study leading to completion of requirements (other than course work) for the master's degree. To retain classified standing in the master's program, a student must enroll in 698 each quarter until the project or thesis is accepted or the comprehensive examination passed. Students who enroll in 698 through the university have full use of all university facilities. See Culminating Experience: Exam, Thesis, or Project in Graduate Degree and Program Requirements section of the Bulletin of Courses. 698 is a variable unit course, see fee schedule in the Financial Information section of the Bulletin of Courses. Earned units are not degree-applicable nor will they qualify for financial aid.

GEOG 698D. Continuous Enrollment for Graduate Candidacy Standing. 4 Units.
Prerequisites: advancement to candidacy and approval of program graduate coordinator or, if an interdisciplinary studies major, consent of the Dean of Graduate Studies
Independent study leading to completion of requirements (other than course work) for the master's degree. To retain classified standing in the master's program, a student must enroll in 698 each quarter until the project or thesis is accepted or the comprehensive examination passed. Students who enroll in 698 through the university have full use of all university facilities. See Culminating Experience: Exam, Thesis, or Project in Graduate Degree and Program Requirements section of the Bulletin of Courses. 698 is a variable unit course, see fee schedule in the Financial Information section of the Bulletin of Courses. Earned units are not degree-applicable nor will they qualify for financial aid.

GEOG 698E. Continuous Enrollment for Graduate Candidacy Standing. 5 Units.
Prerequisites: advancement to candidacy and approval of program graduate coordinator or, if an interdisciplinary studies major, consent of the Dean of Graduate Studies
Independent study leading to completion of requirements (other than course work) for the master's degree. To retain classified standing in the master's program, a student must enroll in 698 each quarter until the project or thesis is accepted or the comprehensive examination passed. Students who enroll in 698 through the university have full use of all university facilities. See Culminating Experience: Exam, Thesis, or Project in Graduate Degree and Program Requirements section of the Bulletin of Courses. 698 is a variable unit course, see fee schedule in the Financial Information section of the Bulletin of Courses. Earned units are not degree-applicable nor will they qualify for financial aid.

GEOG 698F. Continuous Enrollment for Graduate Candidacy Standing. 6 Units.
Prerequisites: advancement to candidacy and approval of program graduate coordinator or, if an interdisciplinary studies major, consent of the Dean of Graduate Studies
Independent study leading to completion of requirements (other than course work) for the master's degree. To retain classified standing in the master's program, a student must enroll in 698 each quarter until the project or thesis is accepted or the comprehensive examination passed. Students who enroll in 698 through the university have full use of all university facilities. See Culminating Experience: Exam, Thesis, or Project in Graduate Degree and Program Requirements section of the Bulletin of Courses. 698 is a variable unit course, see fee schedule in the Financial Information section of the Bulletin of Courses. Earned units are not degree-applicable nor will they qualify for financial aid.
GEOG 698Z. Continuous Enrollment for Graduate Candidacy Standing. 0 Units.
Prerequisites: advancement to candidacy and approval of program graduate coordinator or, if an interdisciplinary studies major, consent of the Dean of Graduate Studies
Independent study leading to completion of requirements (other than course work) for the master's degree. To retain classified standing in the master's program, a student must enroll in 698 each quarter until the project or thesis is accepted or the comprehensive examination passed. Students who enroll in 698 through the university have full use of all university facilities. See Culminating Experience: Exam, Thesis, or Project in Graduate Degree and Program Requirements section of the Bulletin of Courses. 698 is a variable unit course, see fee schedule in the Financial Information section of the Bulletin of Courses. Earned units are not degree-applicable nor will they qualify for financial aid.

GEOG 699. Graduate Project or Thesis. 4 Units.
Prerequisites: CHEM 695, GEOG 695 or GEOL 695
Independent graduate project or research under guidance of the major advisor culminating in a written project or thesis in satisfaction of the extended project option of the degree requirements.