

GEOGRAPHY

The Geography Department offers theoretical and applied work in human geography, environment and society geography, physical geography and geographic information science. Each subfield covers a broad range of topics. Human geography includes political, cultural, development, feminist, population and urban geography. Environment and society geography includes political ecology, natural hazards and conservation practice. Physical geography includes climatology, geomorphology, hydrology and biogeography. Geographic information science includes spatial analysis using GIS, remote sensing and cartography. The department also offers regionally focused courses on mountain geography and geographies of China, Latin America, Africa and South Asia. To complement its curriculum, the department also offers internship opportunities for geography majors.

The undergraduate degree in geography emphasizes knowledge and awareness of:

- the unique contributions of the discipline to understanding the spatial components of problems and the diverse factors relating to human interaction with the environment;
- the spatial distributions of physical and human characteristics on the Earth surface, the general patterns these form and the processes that have created and are changing these patterns;
- major themes of geographical analysis, including human and physical characteristics of place; human-environmental relations; movement of people, ideas and products; and regionalization; and
- the general geographical principles of human-environment interaction, global change and human spatial organization.

In addition, students completing the degree in geography are expected to acquire proficiency in:

- one or more of the specific geographic skill areas of cartography, remote sensing and geographic information systems;
- writing, quantitative methods, computer literacy, and library and field methods of data collection; and
- identifying the geographic dimensions of a problem and analyzing, synthesizing and evaluating relevant data and applying geographic principles offering a geographic perspective on that problem.

The course code for this program is GEOG.

Minimum Academic Preparation Standards (MAPS)

To fulfill a MAPS deficiency in geography, students may take one of the following courses: GEOG 1962, GEOG 1972, GEOG 1982, GEOG 1992, GEOG 2092 or pass the Geography Exemption Exam. Declared majors or minors with junior standing (57 credit hours minimum) or transfers with junior standing may take GEOG 3682, GEOG 3742 or GEOG 4712 to fulfill the MAPS deficiency.

Geography Honors Program

Students interested in earning honors with their work in geography should contact the departmental honors advisor during their junior year.

Geography Internship Program

To complement its curriculum, the department offers geography majors internship opportunities that can be used to earn credit towards their degree. Students interested in pursuing an internship should contact the Department for information on eligibility and terms.

Residential Academic Program

Students may visit the Geography Department Office to learn more about the Baker Residential Academic Program (<https://www.colorado.edu/bakerrap/>).

Bachelor's Degree

- Geography - Bachelor of Arts (BA) (<https://catalog.colorado.edu/undergraduate/colleges-schools/arts-sciences/programs-study/geography/geography-bachelor-arts-ba/>)

Minor

- Geography - Minor (<https://catalog.colorado.edu/undergraduate/colleges-schools/arts-sciences/programs-study/geography/geography-minor/>)

Certificates

- Arctic Studies - Certificate (<https://catalog.colorado.edu/undergraduate/colleges-schools/arts-sciences/programs-study/international-affairs/arctic-studies-certificate/>)
- GIS and Computational Science - Certificate (<https://catalog.colorado.edu/undergraduate/colleges-schools/arts-sciences/programs-study/geography/gis-computational-science-certificate/>)
- Hydrology - Certificate (<https://catalog.colorado.edu/undergraduate/colleges-schools/arts-sciences/programs-study/geography/hydrology-certificate/>)

Faculty

While many faculty teach both undergraduate and graduate students, some instruct students at the undergraduate level only. For more information, contact the faculty member's home department.

Abdalati, Waleed (https://experts.colorado.edu/display/fisid_145800/)
Professor; PhD, University of Colorado Boulder

Balch, Jennifer Kakareka (https://experts.colorado.edu/display/fisid_154464/)
Associate Professor; PhD, Yale University

Barnard, Holly Rene (https://experts.colorado.edu/display/fisid_147417/)
Associate Professor, Associate Chair; PhD, Oregon State University

Blanken, Peter David (https://experts.colorado.edu/display/fisid_114026/)
Professor; PhD, University of British Columbia (Canada)

Boykoff, Maxwell Thomas (https://experts.colorado.edu/display/fisid_147562/)
Associate Professor Adjunct; PhD, University of California, Santa Cruz

Bruckner, Heide (https://experts.colorado.edu/display/fisid_166056/)
Instructor; PhD, University of Graz

Bryan, Joseph Henry (https://experts.colorado.edu/display/fisid_145802/)
Associate Chair, Associate Professor; PhD, University of California, Berkeley

Buttenfield, Barbara P. (https://experts.colorado.edu/display/fisid_107860/)
Professor Emerita; PhD, University of Washington

Caine, T. Nelson (https://experts.colorado.edu/display/fisid_104285/)
Professor Emeritus

Cao, Guofeng (https://experts.colorado.edu/display/fisid_167522/)
Assistant Professor; PhD, University of California Santa Barbara

Carroll, Clinton R. (https://experts.colorado.edu/display/fisid_154726/)
Assistant Professor Adjunct; PhD, University of California, Berkeley

Diaz, Melisa (https://experts.colorado.edu/display/fisid_168628/)
Assistant Professor; Ph.D., The Ohio State University

Fluri, Jennifer L. (https://experts.colorado.edu/display/fisid_154033/)
Chair, Professor; PhD, Pennsylvania State University

Foote, Kenneth E.
Professor Emeritus

Goldman, Mara Jill (https://experts.colorado.edu/display/fisid_143542/)
Associate Professor; PhD, University of Wisconsin–Madison

Harrison, Jill Lindsey (https://experts.colorado.edu/display/fisid_149614/)
Associate Professor; PhD, University of California, Santa Cruz

Isaacs, Rachel (https://experts.colorado.edu/display/fisid_164240/)
Instructor; PhD, Pennsylvania State University

Karimzadeh, Morteza (https://experts.colorado.edu/display/fisid_166081/)
Assistant Professor; PhD, Pennsylvania State University

Kelly, Sarah (https://experts.colorado.edu/display/fisid_159679/)
Instructor; MA, University of South Florida

Leyk, Stefan (https://experts.colorado.edu/display/fisid_145192/)
Professor, Associate Chair; PhD, University of Zurich (Switzerland)

Lining, Katherine (https://experts.colorado.edu/display/fisid_163643/)
Assistant Professor; PhD, Colorado State University

Mohan, Taneesha
Teaching Assistant Professor; Ph.D., London School of Economics and Political Science

Molotch, Noah Paul (https://experts.colorado.edu/display/fisid_139374/)
Associate Professor; PhD, University of Arizona

Musselman, N. Keith (https://experts.colorado.edu/display/fisid_151215/)
Assistant Professor; Ph.D, University of California- Los Angeles

O'Loughlin, John (https://experts.colorado.edu/display/fisid_101339/)
Professor; PhD, Pennsylvania State University

Oakes, Tim (https://experts.colorado.edu/display/fisid_109269/)
Professor; PhD, University of Washington

Pitlick, John
Professor Emeritus

Reid, Colleen (https://experts.colorado.edu/display/fisid_157951/)
Assistant Professor; PhD, University of California, Berkeley

Riosmena, Fernando (https://experts.colorado.edu/display/fisid_144419/)
Associate Professor; PhD, University of Pennsylvania

Rogers, Andrei
Professor Emeritus

Schoennagel, Tania (https://experts.colorado.edu/display/fisid_139625/)
Assistant Professor Adjunct

Serreze, Mark (https://experts.colorado.edu/display/fisid_106334/)
Distinguished Professor; PhD, University of Colorado Boulder

Spielman, Seth Edward (https://experts.colorado.edu/display/fisid_148271/)
Associate Professor; PhD, SUNY at Buffalo

Travis, William R. (https://experts.colorado.edu/display/fisid_101777/)
Associate Professor; PhD, Clark University

Truelove, Yaffa Elane (https://experts.colorado.edu/display/fisid_159271/)
Assistant Professor; PhD, University of Cambridge (England)

Veblen, Thomas T. (https://experts.colorado.edu/display/fisid_105842/)
Distinguished Professor Emeritus; PhD, University of California, Berkeley

Williams, Mark W. (https://experts.colorado.edu/display/fisid_105438/)
Professor Emeritus

Yeh, Emily Ting (https://experts.colorado.edu/display/fisid_130119/)
Professor; PhD, University of California, Berkeley

Courses

GEOG 1001 (4) Environmental Systems: Climate and Vegetation

Lect. and lab. Introduces the atmospheric environment of the Earth: elements and controls of climate and their implications for hydrology, vegetation, and soils. Emphasizes distribution of physical features across the Earth's surface and interactions between humans and their environment, especially those leading to global change on the decade to century time scale.

Additional Information: GT Pathways: GT-SC1 - Natural Physical Sci:Lec Crse w/ Req Lab

Arts Sci Core Curr: Natural Science Sequence

Arts Sci Core Curr: Natural Science Lab

Arts Sci Gen Ed: Distribution-Natural Sci Lab

Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: Physical Geography

MAPS Course: Natural Science Lab or Lab/Lec

MAPS Course: Natural Science

GEOG 1011 (4) Environmental Systems: Landscapes and Water

Lect. and lab. Introduces landscapes and flowing water, emphasizing the formation and geographic distribution of mountains, volcanoes, valleys, and deserts, and their shaping by rivers and glaciers. Includes field trips.

Additional Information: GT Pathways: GT-SC1 - Natural Physical Sci:Lec Crse w/ Req Lab

Arts Sci Core Curr: Natural Science Sequence

Arts Sci Core Curr: Natural Science Lab

Arts Sci Gen Ed: Distribution-Natural Sci Lab

Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: Physical Geography

MAPS Course: Natural Science Lab or Lab/Lec

MAPS Course: Natural Science

GEOG 1962 (3) Geographies of Global Change

Familiarizes students with a geographic understanding of conflicts around the globe and of economic, political and cultural globalization.

Analyzes the relationship between global forces, regions and local interests in contemporary territorial and geopolitical tensions and conflicts, emphasizing issues such as nationalism, migration, labor and natural resources. Formerly GEOG 2002.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences

Arts Sci Gen Ed: Diversity-Global Perspective

Departmental Category: Asia Content

MAPS Course: Geography

GEOG 1972 (3) Environment-Society Geography

Examines interactions between humans and the environment across the globe from a geographical perspective. Introduces different analytical perspectives through which to understand nature-society relationships, with a focus on social, cultural and political-economic dimensions, and examples from different natural resource sectors (e.g., water, agriculture) and countries. Formerly GEOG 2412.

Additional Information: Arts Sci Gen Ed: Diversity-Global Perspective

Arts Sci Gen Ed: Distribution-Social Sciences

Departmental Category: Environment-Society Geography

MAPS Course: Geography

GEOG 1982 (3) Global Geographies: Societies, Places, Connections

Introduces a comparative framework for recognizing and understanding the diversity of the world's societies and cultures. Units explore both local scale issues such as economic growth, inequality, political conflict, ethnic and racial dynamics, and climate change impacts, as well as broader scale trends associated with globalization, international development, migration, and the historical legacies of colonialism and imperialism.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences

Departmental Category: Asia Content

MAPS Course: Geography

GEOG 1992 (3) Human Geographies

Examines social, political, economic, and cultural processes creating the geographical worlds in which we live, and how these spatial relationships shape our everyday lives. Studies urban growth, geopolitics, agricultural development and change, economic growth and decline, population dynamics, and migration exploring both how these processes work at global scale as well as shape geographies of particular places.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences

MAPS Course: Geography

GEOG 2001 (1-4) Topics in Physical Geography

Examines various topics in physical geography that are not typically covered in the curriculum for lower division students; offered intermittently depending on student demand and availability of instructors.

GEOG 2053 (3) Mapping a Changing World

Examines roles that maps, geospatial data and technology play in understanding and explaining our world with a focus on geospatial literacy. Emphasizes critical thinking about the use of natural and social science data and discusses maps used for social and political purposes. In hands-on exercises students learn how to critically read and evaluate maps for expanding spatial awareness of nature and society.

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences

Arts Sci Gen Ed: Distribution-Social Sciences

Departmental Category: Techniques (Skills)

GEOG 2092 (3) Advanced Introduction to Human Geography

Provides a rigorous introduction to key analytical concepts of human geography - place, space, scale, regions, nature, landscapes and territory - while giving an overview of topics addressed in subfields including economic geography, political geography, cultural geography and development geography. Specific topics may vary slightly from semester to semester but will likely include borders and migration, maps, tourism, climate change and the Anthropocene, geopolitical conflict, development, urbanization, nationalism, gender, race, inequality and identity.

Grading Basis: Letter Grade

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences

MAPS Course: Geography

GEOG 2271 (3) Introduction to the Arctic Environment

Rising temperatures and shrinking sea ice are only the most visible indications of a rapidly changing Arctic. This course addresses the climate of the Arctic and the changes being observed at a non-mathematical level. It is intended to provide students with a basic understanding of the Arctic physical environment.

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: Physical Geography

GEOG 2692 (3) Foundations in Public Health

This course provides a comprehensive overview of public health as well as an in-depth review of specific public health-related topics. Beginning with historical overview, students will explore major public health concepts such as the basic principles of epidemiology, the biomedical basis of disease, social and behavioral determinants of health, and systems thinking. Students will be introduced to the concepts of measuring and evaluating the health of the populations, principles of communicable and non-communicable diseases, environmental and occupational health, the economics of health, and the role of public health workers in society.

Equivalent - Duplicate Degree Credit Not Granted: IPHY 2692

GEOG 2852 (3) Contemporary Southeast Asia: Environmental Politics

Examines globally pressing questions of environmental sustainability, regional inequality and development in the dynamic and heterogeneous landscapes of contemporary Southeast Asia. Focuses on interactions between histories of uneven development and contemporary debates over energy and infrastructure, food security, governance and access to land, forest and water-based resources.

Equivalent - Duplicate Degree Credit Not Granted: ASIA 2852

Additional Information: Arts Sci Gen Ed: Diversity-Global Perspective

Arts Sci Gen Ed: Distribution-Social Sciences

Departmental Category: Environment-Society Geography

GEOG 3022 (3) Climate Politics and Policy

Engages students in exploring the realm of contemporary and historical climate policy at three major levels of government: international, national and local/regional. Through course lectures, discussions, readings and activities, students will become conversant with the actors, mechanisms and concerns involved in climate policy and politics and develop their own sense of how to judge the success of climate policies. Fulfills intermediate social science requirement in Environmental Studies Major.

Equivalent - Duplicate Degree Credit Not Granted: ENVS 3022

Recommended: Prerequisite ENVS 1000 or GEOG 1972.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Environment-Society Geography

GEOG 3023 (4) Statistics and Geographic Data

Introduces computational and statistical tools to solve problems in the geographic domain. Provides an understanding of introductory statistical concepts and applies them to real world problems through lab exercises. Emphasizes spatial data, which requires specialized descriptive and predictive analysis techniques. Demonstrates how to manipulate and visualize data, and make inference using state-of-the art statistics software, applied to various social and earth science problems.

Equivalent - Duplicate Degree Credit Not Granted: GEOL 3023

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences
Arts Sci Gen Ed: Quantitative Reasoning Math
Departmental Category: Techniques (Skills)

GEOG 3053 (4) Geographic Information Science: Mapping

Introduction to Geographic Information Systems (GIS) and the fundamentals of cartographic design. Emphasis on the science and art of map design in a GIS environment. Students will learn how to build a spatial database, implement best practice for processing various types of environmental and social data and apply basic visual analytics to understand spatial patterns.

Requisites: Restricted to students with 27-180 credits (Sophomores, Juniors or Seniors).

Recommended: Prerequisite basic familiarity with computers and an introductory course in statistics (may be taken concurrently).

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences
Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Techniques (Skills)

GEOG 3251 (3) Mountain Geography

Surveys mountain environments and their human use with illustrations from temperate and tropical mountain areas.

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences
Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Physical Geography

GEOG 3301 (3) Analysis of Climate and Weather Observations

Discusses instruments, techniques and statistical methods used in atmospheric observations. Covers issues of data accuracy and analysis of weather maps. Provides application to temperature and precipitation records, weather forecasting and climate change trends. Uses computers to access data sets and process data.

Equivalent - Duplicate Degree Credit Not Granted: ATOC 3300

Requisites: Requires prerequisite courses of APPM 1340 and 1345 or APPM 1350 or ECON 1088 or MATH 1081 or MATH 1300 or MATH 1310 and ATOC 1050 and ATOC 1060 or GEOG 3601 or ATOC 3600 or ENVS 3600 or GEOG 1011 (all minimum grade D-).

Recommended: Prerequisites ATOC 1050 or ATOC 1060 or ATOC 3600 or GEOG 3601 or ENVS 3600 or GEOG 1001 and one semester calculus.

Additional Information: Arts Sci Core Curr: Natural Science Non-Sequence
Arts Sci Gen Ed: Distribution-Natural Sciences
Departmental Category: Physical Geography

GEOG 3351 (3) Biogeography

Surveys and analyzes plant and animal distributions on a world scale from ecological and historical perspectives. Emphasizes human impact on species.

Requisites: Requires prerequisite course of GEOG 1001 (minimum grade D-).

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences
Departmental Category: Physical Geography

GEOG 3402 (3) Natural Hazards

Explores the impacts of extreme geophysical events on human society. Emphasizes adaptations to extreme events and ways of reducing vulnerability and damage.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Environment-Society Geography

GEOG 3412 (3) Conservation Practice and Resource Management

Studies policy and management of natural resources. Emphasizes practical approaches to the conservation and management of soil, land, water and air resources.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Environment-Society Geography

GEOG 3422 (3) Political Ecology

Introduces students to political ecology, an influential approach to understanding society-environment relationships. Explores issues including different philosophies of nature and wilderness, the politics of conservation, causes of environmental degradation, environmental conflict and indigenous ecological knowledge.

Recommended: Prerequisite GEOG 1972.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Environment-Society Geography

GEOG 3511 (4) Introduction to Hydrology

Examines hydrologic processes in the surface environment, emphasizing the environment of the western United States. Emphasizes natural processes and their management to augment water resources.

Requisites: Requires a prerequisite course of GEOG 1011 or GEOL 1010 (minimum grade D-).

Additional Information: Arts Sci Core Curr: Natural Science Non-Sequence
Arts Sci Gen Ed: Distribution-Natural Sci Lab
Arts Sci Gen Ed: Distribution-Natural Sciences
Departmental Category: Physical Geography

GEOG 3601 (3) Principles of Climate

Describes the basic components of the climate system: the atmosphere, ocean, cryosphere and lithosphere. Investigates the basic physical processes that determine climate and link the components of the climate system. Covers the hydrological cycle and its role in climate, climate stability and global change.

Equivalent - Duplicate Degree Credit Not Granted: ATOC 3600 and ENVS 3600

Requisites: Restricted to Geography (GEOG) or Environmental Studies (ENVS) majors or Atmospheric Oceanic Sciences (ATOC) minors only.

Recommended: Prerequisites one semester of calculus and ATOC 1060 or ATOC 3300 or GEOG 3301 or GEOG 1001.

Additional Information: Arts Sci Core Curr: Natural Science Non-Sequence
Arts Sci Gen Ed: Distribution-Natural Sciences
Departmental Category: Physical Geography

GEOG 3612 (3) Geography of American Cities

Introduces geography of American cities, highlighting urban development as a contested, socially and spatially uneven process; emphasizes the intersection of urban space with categories of difference such as race and class.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Arts Sci Gen Ed: Diversity-U.S. Perspective

GEOG 3622 (3) Cities of the Global South

Examines the geographies, processes, structural forces and everyday forms of urban life that are at the core of rapid urban transformation in the global South. Through using interdisciplinary scholarship, empirical case studies and key theoretical work, the course covers themes such as migration and urbanization, informality and governance, infrastructures of everyday life and urban environmental politics.

Equivalent - Duplicate Degree Credit Not Granted: IAFS 3670

GEOG 3662 (3) Economic Geography

Presents theories of the spatial organization of economic production, consumption and exchange systems. Geographical dynamics of industrialization, urbanization and economic growth. Examination of property, labor and social conflict, with a focus on political economy.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences

GEOG 3672 (3) Who Runs the World? Sex, Power, and Gender in Geography

This course will examine how gender and sexuality is constructed locally, nationally, and globally, drawing on conversations about feminist pasts, presents, and futures. We will focus on how gender intersects with race, class, sexuality, ability, religion, ethnicity, and geopolitical location to structure the lived experiences of women across the globe. We will apply critical geographic perspectives to gender inequality, exploring the overlaps and differences in women's and LGBTQ+ struggles as they are shaped by ongoing socio-cultural, political, and economic conditions globally.

Equivalent - Duplicate Degree Credit Not Granted: WGST 3672

Recommended: Prerequisite GEOG 1962 or GEOG 1972 or GEOG 1982 or GEOG 1992 or GEOG 2092 or WGST 2000 or WGST 2600.

Additional Information: Arts Sci Core Curr: Human Diversity
Arts Sci Gen Ed: Diversity-Global Perspective
Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Human Geography

GEOG 3682 (3) Geography of International Development

Compares and contrasts global characteristics and processes of development, emphasizing the developing countries of the world. Integrates theories of development, specific development topics, and case studies to explore the problems of development.

Requisites: Restricted to students with 27-180 credits (Sophomores, Juniors or Seniors) only.

Recommended: Prerequisite GEOG 1962 or GEOG 1972 or GEOG 1982 or GEOG 1992 or GEOG 2092.

Additional Information: Arts Sci Gen Ed: Diversity-Global Perspective
Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Human Geography
Departmental Category: Asia Content

GEOG 3692 (4) Introduction to Global Public Health

Introduces global health by putting its contemporary definition, determinants, development and direction as a field into a broad global context. The course is divided into four core topics: 1) the burden and distribution of disease and mortality; 2) the determinants of global health disparities; 3) the development of global health policies; and 4) the outcomes of global health interventions. Required for the Public Health Certificate.

Additional Information: Arts Sci Gen Ed: Diversity-Global Perspective
Arts Sci Gen Ed: Distribution-Social Sciences

GEOG 3742 (3) Place, Power, and Contemporary Culture

Examines the relationship between places, power, and the dynamics of culture. Explores how the globalization of economics, politics, and culture shapes cultural change. Looks at how place-based cultural politics both assist and resist processes of globalization.

Recommended: Prerequisite GEOG 1962 or GEOG 1982 or GEOG 1992 or GEOG 2092.

Additional Information: Arts Sci Core Curr: Contemporary Societies
Arts Sci Gen Ed: Distribution-Arts Humanities
Arts Sci Gen Ed: Diversity-Global Perspective
Arts Sci Gen Ed: Distribution-Social Sciences
Arts Sci Gen Ed: Diversity-U.S. Perspective
Departmental Category: Human Geography

GEOG 3782 (3) Environmentalism, Race, and Justice

Examines spatial inequalities in environmental problems and their relationships to environmentalism and racism. Examines the implications for human health, well-being, and sense of place. Identifies factors that contribute to environmental inequalities, with particular attention to environmentalism and racism. Explores efforts to reduce environmental inequality, including by social movements, researchers, students, journalists, political leaders, and government agencies. Introduces students to research methods for documenting and analyzing environmental inequality. Focuses geographically on the United States. Formerly offered as a special topics course.

Recommended: Prerequisite GEOG 1972.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences

GEOG 3812 (3) Mexico, Central America, and the Caribbean

Introduces the geography of Latin America, focusing on the lands and peoples of Mexico, Central America, and the Caribbean. Examines regional and national culture, history, environment, and population, as well as ongoing environmental and socioeconomic changes.

Recommended: Prerequisite GEOG 1962 or GEOG 1972 or GEOG 1982 or GEOG 1992 or GEOG 2092.

Additional Information: Arts Sci Gen Ed: Diversity-Global Perspective
Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Human Geography

GEOG 3822 (3) Geography of China

Surveys the world's most populous country, examining physical and historical geography, urbanization and regional development, agriculture, population, energy, and the environment. Seeks to situate China's development in a broader Asian and global context.

Recommended: Prerequisite GEOG 1962 or GEOG 1972 or GEOG 1982 or GEOG 1992 or GEOG 2092.

Additional Information: Arts Sci Core Curr: Human Diversity
Arts Sci Gen Ed: Diversity-Global Perspective
Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Human Geography
Departmental Category: Asia Content

GEOG 3832 (3) Geographies of South Asia

Examine the geographies of South Asia through four interrelated themes: Territory, Trade, Transportation, and Tributaries. Learn about territory including physical features, political conflicts and changing borders.

Explore trade, transportation routes, and tributaries to understand economic, social/cultural and political geographies. Investigate culture and society through analyses of gender roles/relations.

Recommended: Prerequisites GEOG 1962 or GEOG 1972 or GEOG 1982 or GEOG 1992 or GEOG 2092.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Human Geography
Departmental Category: Asia Content

GEOG 3840 (1-6) Undergraduate Independent Study

Provides an independent study opportunity, by special arrangement with faculty, for students presenting strong geography preparation. Instructor consent required.

Repeatable: Repeatable for up to 8.00 total credit hours. Allows multiple enrollment in term.

Requisites: Restricted to Geography (GEOG) majors only.

GEOG 3842 (3) Human Geography of Czechia: Political, Economic and Social Transitions

Excursions in Prague will begin with an understanding of Czech history through various imprints on the landscape, such as city planning, design, architecture and culture. This will be followed by a discussion of Prague in the 20th century and the various political, economic and social transitions. These transitions will be explored through field based study in and outside of Prague.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences

GEOG 3862 (3) Geography of Africa

Studies physical and cultural regions of Africa. Analyzes and compares the development of present nation-states and contemporary geographic issues including globalization, conservation, public health and food security.

Recommended: Prerequisite GEOG 1962 or GEOG 1972 or GEOG 1982 or GEOG 1992 or GEOG 2092.

Additional Information: Arts Sci Gen Ed: Diversity-Global Perspective
Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Human Geography

GEOG 3882 (3) Geography of the Former Soviet Union

Examines the contemporary social, political, population, cultural, ethnic and resource geography of the former Soviet Union. Relations between Russia and neighboring countries are also considered. Historical and physical geography are introduced as background to understanding post-Soviet developments and challenges.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences

GEOG 3930 (3) Internship

Provides an academically supervised opportunity for advanced geography or environmental studies majors to work in public and private organizations on projects related to the student's career goals and to relate classroom theory to practice. Instructor consent required.

Repeatable: Repeatable for up to 6.00 total credit hours. Allows multiple enrollment in term.

Requisites: Restricted to Geography (GEOG) or Environmental Studies (ENVS) majors only.

GEOG 4001 (1-4) Topics in Physical Geography

Examines various topics in physical geography that are not typically covered in the curriculum. Offered intermittently depending on student demand and availability of instructors.

Repeatable: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences

GEOG 4002 (1-4) Topics in Human and Environment/Society Geography

Examines various topics in human and environment / society geography that are not typically covered in the curriculum. Offered intermittently depending on student demand and availability of instructors.

Repeatable: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences

GEOG 4003 (1-4) Topics in Geographic Skills

Examines various topics in geographical skills and techniques that are not typically covered in the curriculum. Offered intermittently depending on student demand and availability of instructors.

Repeatable: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences

GEOG 4023 (4) Advanced Quantitative Methods for Spatial Data

Reviews fundamental statistical and quantitative modeling techniques and introduces more advanced statistical techniques widely used in geography today. Emphasizes geographic examples and spatial problems teaching hands-on skills in statistical programming. Topics covered include generalized linear models, spatial autocorrelation, spatial regression methods, and working with complex datasets.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5023

Requisites: Requires prerequisite course of GEOG 3023 (minimum grade D-).

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Methods

GEOG 4043 (4) Advanced Geovisualization and Web Mapping

Advanced technical course in web-based cartography and geovisualization stressing the important role digital cartography plays in cyberspace and society. Focuses on principles of effective cartographic design in multimedia and hypertext environments. Labs are organized around hands-on active learning projects demonstrating skills in geovisualization and cartographic practice.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5043

Requisites: Requires prerequisite course of GEOG 3053 (minimum grade C-).

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences
Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Methods

GEOG 4093 (4) Remote Sensing of the Environment

Covers acquisition and interpretation of environmental data by remote sensing. Discusses theory and sensors as well as manual and computerized interpretation methods. Stresses infrared and microwave portions of the spectrum.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5093 and GEOL 4093 and GEOL 5093

Requisites: Requires prerequisite course of APPM 1340 1345 or APPM 1350 or 4570 or ECON 1088 or 3818 or MATH 1081 or 1300 or 1310 or 2510 or ANTH 4000 or BCOR 1020 or GEOG 3023 or GEOL 3023 or PSCI 2075 or PSYC 2111 or SOCY 2061 or 4061 (minimum grade D-).

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sci Lab
Arts Sci Gen Ed: Distribution-Natural Sciences
Departmental Category: Methods

GEOG 4103 (4) Geographic Information Science: Spatial Analytics

Explores advanced topics in geospatial databases, spatial analytics and geoprocessing in a Geographic Information System (GIS). Emphasizes how geographic concepts are linked to methodological frameworks for recording, transforming, storing/retrieving, analyzing, and processing geographic data as well as various forms of uncertainty. Exercises demonstrate the application of GIS-based methods to real world scenarios in interdisciplinary settings.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5103

Requisites: Requires prereq (GEOG3053) any one of the following (ANTH4000 or APPM4570 or BCOR1020 or ECON3818 or GEOG3023 or GEOL3023 or MATH2510 or PSCI2075 or PSYC2111 or SOCY2061 or 4061) (all min grade C-). Restricted to students with 57-180 credits (JR/SR).

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sci Lab

Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: GIScience

GEOG 4173 (3) Research Seminar

Examines the nature of research and develops pregraduate skills for geographic research, emphasizing problem definition, methods, sources, data interpretation, and writing. Recommended for students pursuing honors.

Requisites: Restricted to students with 87-180 credits (Senior, Fifth Year Senior) Geography (GEOG) or Environmental Studies (ENVS) majors only.

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences
Departmental Category: Methods

GEOG 4201 (3) Biometeorology

Interdisciplinary science, studying the interactions between atmospheric processes and living organisms (plants, animals, and humans).

Discusses how organisms adapt to a changing environment. Uses a practical, problem-solving approach to explore these interactions.

Equivalent - Duplicate Degree Credit Not Granted: ENVS 4201

Requisites: Requires prereq of GEOG 1001 any of APPM 1340 1345 or APPM 1350 or 4570 or ECON 1088 or 3818 or MATH 1081 or 1300 or 1310 or 2510 or ANTH 4000 or BCOR 1020 or GEOG 3023 or GEOL 3023 or PSCI 2075 or PSYC 2111 or SOCY 2061 or 4061 (min grade D-).

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences
Departmental Category: Physical Geography

GEOG 4203 (4) Geographic Information Science: Spatial Modeling

Focuses on the use and development of advanced models for human and environmental applications in a geospatial environment integrating raster and vector data models. Covers terrain and hydrologic modeling, geostatistical modeling, dasymetric modeling, as well as multi-criteria modeling. Group projects critically design, implement and test spatial models to develop independent skillsets in a chosen problem setting.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5203

Requisites: Requires prerequisite course of GEOG 4103 (minimum grade C-).

Recommended: Requisite working knowledge of GIS software.

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sci Lab

Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: GIScience

GEOG 4241 (4) Principles of Geomorphology

Studies weathering, mass-wasting, fluvial, wind, and marine processes and the resulting landforms.

Equivalent - Duplicate Degree Credit Not Granted: GEOL 4241

Requisites: Requires prereq crs GEOG 1011 or GEOL 1010 or 1020 or 1030 or 1040 or 1060 and APPM 1340 and 1345 or APPM 1350 or ECON 1088 or MATH 1081 or 1300 or 1310 (min grade D-). Restricted to students with 57-180 credits (JR/Sr) EVOC, GEOG, GEOL, ENVS mjrs only

Additional Information: Arts Sci Core Curr: Natural Science Non-Sequence

Arts Sci Gen Ed: Distribution-Natural Sci Lab

Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: Physical Geography

GEOG 4251 (4) Fluvial Geomorphology

Emphasizes landscapes formed by running water. Includes basic fluid mechanics, sediment transport, hillslope and channel erosion, and sediment yield.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5251

Requisites: Requires prerequisite courses of GEOG 1011 and GEOG 3511 (minimum grade D-).

Recommended: Prerequisite GEOG 3023.

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sci Lab

Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: Physical Geography

GEOG 4261 (3) Glaciers and Permafrost

Surveys the major terrestrial components of the cryosphere, including permafrost, glaciers and ice sheets. Emphasizes physical processes involving ice, including thermal behavior, ice deformation and mass balance, but also considers biogeochemical processes and landforms associated with ice. The climate context, including human interactions and recent climate history, will be considered. Taught in a combination lecture-seminar format.

Requisites: Requires prerequisite course of GEOG 1011 or GEOL 1010 (minimum grade D-).

Recommended: Prerequisite GEOG 4241.

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: Physical Geography

GEOG 4271 (3) The Arctic Climate System

Understanding the climate of the Arctic requires a synthetic, system oriented approach. The course focuses on the intimate linkages between the atmosphere, ocean and land that give the Arctic region its unique character, link the Arctic to the larger global climate system, and promote understanding the rapid changes occurring in the Arctic.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5271

Requisites: Requires prerequisite course of GEOG 1001 or ATOC 1050 or ATOC 1060 (minimum grade D-).

Recommended: Prerequisites GEOG 3511 or GEOG 3601 or ATOC 3600 or ENVS 3600 and statistics.

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: Physical Geography

GEOG 4292 (3) Migration, Immigrant Adaptation, and Development

Examines historical and current patterns of migration with an emphasis in international movement. Looks at leading migration theories related to both origin- and destination-based explanations while critically looking at the role of development as a potential cause and consequence of population movement. Finally, covers some aspects of immigrants' social and economic adaptation to their host society.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5292

Recommended: Prerequisite GEOG 1962 or GEOG 1972 or GEOG 1982 or GEOG 1992 or GEOG 2092.

Additional Information: Arts Sci Gen Ed: Diversity-Global Perspective

Arts Sci Gen Ed: Distribution-Social Sciences

Arts Sci Gen Ed: Diversity-U.S. Perspective

Departmental Category: Human Geography

GEOG 4303 (4) Geographic Information Science: Spatial Programming

Focuses on the extension of geographic information systems (GIS) through programming as well as on the development of algorithms for spatial analysis and information extraction in vector and raster data using open source tools. Covers concepts, principles and techniques of programming and solving spatial problems in natural and social science settings. Group projects will foster skillsets in implementing solutions to complex spatial problems.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5303

Requisites: Requires prerequisite course of GEOG 4103 (minimum grade C-).

Recommended: Prerequisite GEOG 4203.

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sci Lab

Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: GIScience

GEOG 4311 (3) Watershed Biogeochemistry

Emphasizes terrestrial-aquatic linkages in headwater catchments, focusing on hydrologic pathways, isotopic and geochemical tracers, nutrient cycling, water quality, experimental manipulations, and modeling.

Requisites: Requires prerequisite courses of GEOG 1011 and GEOG 3511 (minimum grade D-).

Recommended: Requisite parametric statistics.

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: Physical Geography

GEOG 4321 (3-4) Snow Hydrology

Offers a multidisciplinary and quantitative analysis of physico-chemical processes that operate in seasonally snow-covered areas, from the micro- to global-scale: snow accumulation, metamorphism, ablation, chemical properties, biological aspects, electromagnetic properties, remote sensing, GIS and quantitative methods.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5321

Requisites: Requires prerequisite course of APPM 1340 1345 or APPM 1350 or 4570 or ECON 1088 or 3818 or MATH 1081 or 1300 or 1310 or 2510 or ANTH 4000 or BCOR 1020 or GEOG 3023 or GEOL 3023 or PSCI 2075 or PSYC 2111 or SOCY 2061 or 4061 (minimum grade D-).

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sci Lab

Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: Physical Geography

GEOG 4331 (3-4) Mountain Climatology

Surveys and analyzes climatic characteristics of mountain environments worldwide.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5331

Requisites: Requires prerequisite course of GEOG 1001 or ATOC 1050 or ATOC 1060 (minimum grade D-).

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: Physical Geography

GEOG 4371 (3) Forest Geography: Principles and Dynamics

Surveys principles of forest geography and ecology. Includes both individual tree responses to environmental factors and species interactions within communities. Emphasizes forest dynamics and their relation to management problems.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5371

Requisites: Requires prerequisite course of GEOG 1001 (minimum grade D-).

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: Physical Geography

GEOG 4401 (3) Soils Geography

Discusses chemical and physical properties of soils, soil development, distributions and management relevant to understanding plant-soil relationships in natural and human-altered landscapes.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5401

Requisites: Requires prerequisite course of GEOG 1011 (minimum grade D-).

Recommended: Prerequisite inorganic chemistry.

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: Physical Geography

GEOG 4403 (3) Geographic Information Science: Space Time Analytics

Focuses on understanding processes (human, natural, social or physical) through data driven analysis of patterns in spatio-temporal data. Covers a wide range of topics relevant to space time data, including pattern analysis, modeling and visualization as well as time geography and various contemporary issues in space time analytics. Utilizes a hands-on, flipped classroom approach with in-class development of technical skills.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5403

Requisites: Requires a prerequisite course of GEOG 3023 or GEOG 4023 (minimum grade C-).

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: GIScience

GEOG 4430 (3) Seminar: Conservation Trends

Provides environmental studies or geography majors with an undergraduate format for interdisciplinary discussion and research into current and future directions of conservation.

Repeatable: Repeatable for up to 6.00 total credit hours.

Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences

Departmental Category: Environment-Society Geography

GEOG 4463 (3) Earth Analytics Data Science Bootcamp

Learn key skills to automate data processing and visualization workflows that support both repeatable analysis and collaborative project approaches using scientific programming, version control and project management tools. Covers working with heterogeneous, large spatio-temporal data derived from space, airborne and ground based sensors and other sources. Gain applied experience through group projects that address real world problems.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5463

Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).

Grading Basis: Letter Grade

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences

Departmental Category: Methods

GEOG 4501 (3) Water Resources and Water Management of Western United States

Interprets and analyzes hydroclimatic data, surface and groundwater. Critically evaluates water use, emphasizing problems associated with geographic maldistribution, appropriations, irrigation, industry, pollution and regional development.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5501

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Environment-Society Geography

GEOG 4503 (3) Geographic Information Science: Project Management

Managing a geospatial project encompasses problem identification, project design, analysis and supporting team dynamics. The class mixes lectures and class exercises with student-selected projects and works through all stages of a project from articulating an initial idea to project planning and scoping, building a work plan, timeline and budget, executing the work plan and evaluating a project's progress.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5503

Requisites: Requires prerequisite course of GEOG 3053 or GEOG 4103 (minimum grade C-).

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences
Departmental Category: GIScience

GEOG 4563 (3) Earth Analytics

Introduce students to major unanswered questions in Earth science and to the analytical tools, including data management, analysis and visualization, necessary to explore 'big data' from a suite of sensors. Aligns with Earth Lab, a new initiative of the University's Grand Challenge (<http://www.colorado.edu/grandchallenges/>) to use our expertise in space-based observation to address our world's most pressing problems. Comparable programming course work may be substituted for GEOG 4463 with instructor approval.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5563

Requisites: Requires prerequisite course of GEOG 4463 (minimum grade C-).

Grading Basis: Letter Grade

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences
Departmental Category: Methods

GEOG 4603 (3) GIS in the Social and Natural Sciences

Introduces Geographic Information Systems and their underlying principles through interactive lectures and lab exercises. Students get basic skills for working in a GIS environment and learn how to handle and manage geospatial data, create maps and conduct geospatial analysis focusing on project tasks typically encountered in the social and natural sciences.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5603

Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences
Departmental Category: GIScience

GEOG 4622 (3) City Life

Analyzes social, behavioral, political and demographic factors that influence development and maintenance of communities in contemporary urban environments, with primary emphasis on U.S. cities.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5622

Recommended: Prerequisite GEOG 1962 or GEOG 1972 or GEOG 1982 or GEOG 1992.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences

GEOG 4632 (3) Development Geography

Provides an overview of development policy and practice, surveying foundational works in Development Studies as well as critical interventions. Required for Graduate Certificate in Development Studies.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5632

Requisites: Requires prerequisite course of GEOG 1962 or GEOG 1972 or GEOG 1982 or GEOG 1992 (minimum grade D-).

Recommended: Prerequisite GEOG 1962 or GEOG 1972 or GEOG 1982 or GEOG 1992 or GEOG 2092 (minimum grade D-).

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Human Geography

GEOG 4712 (3) Political Geography

Systematic study of relations between geography and politics, especially as background for better understanding of international affairs. Includes topics such as frontiers and boundaries, power analysis, geopolitics, international political economy, and strategic concepts.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5712

Requisites: Restricted to students with 27-180 credits (Sophomores, Juniors or Seniors) only.

Recommended: Prerequisite GEOG 1962 or GEOG 1972 or GEOG 1982 or GEOG 1992 or GEOG 2092 or IAFS 1000 or PSCI 2012 or PSCI 2223.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Human Geography

GEOG 4722 (3) Field Methods in Human Geography

Examines research methods associated with field work in human geography. Prepares students for fieldwork by focusing on geographic and interdisciplinary field work techniques; interpretation of field data; discussion of the politics, ethics and gender, race, class and cross-cultural issues related to field work.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5722

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Methods

GEOG 4732 (3) Population Geography

Emphasizes spatial aspects of population characteristics including fertility, mortality, migration, distribution and composition. Includes both theoretical and empirical considerations, in addition to field work and computer simulations.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5732

Requisites: Restricted to students with 27-180 credits (Sophomores, Juniors or Seniors) only.

Recommended: Prerequisite GEOG 1962 or GEOG 1972 or GEOG 1982 or GEOG 1992 or GEOG 2092.

Additional Information: Arts Sci Gen Ed: Diversity-Global Perspective
Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Human Geography

GEOG 4742 (3) Topics in Environment and Society

Studies peoples and their environments, including human modification of nature and cultural interpretation and construction of rural and urban landscapes.

Repeatable: Repeatable for up to 6.00 total credit hours. Allows multiple enrollment in term.

Requisites: Restricted to students with 27-180 credits (Sophomores, Juniors or Seniors) only.

Recommended: Prerequisite GEOG 1962 or GEOG 1972 or 1982 or GEOG 1992 or GEOG 2092.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Environment-Society Geography

GEOG 4762 (3) Geographies of Political Islam

Explores the postcolonial landscape of political Islam through the lens of political and cultural geography. Develops a critical anti-essentialist framework for understanding the political crisis of the Muslim world in relation to broader questions of empire, nationalism, democracy, revolution, security, terrorism, globalization and modernity. Focuses on the post-1979 period, several key Muslim nation-states (Saudi-Arabia, Egypt, Iran, Turkey, Pakistan) and movements (Taliban, ISIS).

Recommended: Prerequisite GEOG 1982 or GEOG 1992 or GEOG 2092 or GEOG 3742.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Human Geography

GEOG 4772 (3) The Geography of Food and Agriculture

Course examines geographies of food systems through consideration of food as both a commodity and as culture. Topics covered include the political economy of global food systems, alternative food movements, and environmental factors, as well as interactions between food and gender, race, class, and culture. Previously offered as a special topics course.

Recommended: Prerequisites GEOG 1972 or GEOG 1982 or GEOG 2092.

GEOG 4812 (3) Political Ecology & Latin America

Presents theoretical approaches to the links between environment and development in Latin America and focuses on analytical discussion of contemporary (and controversial) issues in sustainable development in Latin America. Examines social, ecological, economic, and political forces influencing the use of natural resources.

Recommended: Prerequisite GEOG 1962 or GEOG 1982 or GEOG 1992 or GEOG 2092 or GEOG 3682 or GEOG 3422 or GEOG 3812 or ANTH 3110 or PSCI 3032.

Additional Information: Arts Sci Gen Ed: Diversity-Global Perspective
Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Environment-Society Geography

GEOG 4822 (3) Environment and Development in China

Examines key environmental problems in relation to China's rapid modernization and development.

Recommended: Prerequisite GEOG 1962 or GEOG 1982 or GEOG 1992 or GEOG 2092 or HIST 1618.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Environment-Society Geography
Departmental Category: Asia Content

GEOG 4832 (3) Geography of Tibet

Rigorously examines contemporary Tibetan society, culture and nature from a geographical perspective. Uses readings on contemporary Tibet as an entry point into scholarly research about nationalism, representation, diaspora, landscape and place, sustainable development, natural resource management, identity and environmentalism.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5832

Recommended: Prerequisite GEOG 3822 or other classes on China.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Asia Content

GEOG 4842 (3) Global Frontiers in Southeast Asia

Uses the theme of the global frontier to examine and compare three key moments in the modern history of Southeast Asia: the colonial encounter, the rise of the modern territorial state, and the age of contemporary globalization. Examines case studies from earlier eras to analyze emerging global frontiers at the junction of state territoriality and transnational economic expansion.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5842 and ASIA 4842

Additional Information: Arts Sci Gen Ed: Distribution-Arts Humanities
Arts Sci Gen Ed: Distribution-Social Sciences

GEOG 4852 (3) Health and Medical Geography

Examines geographical patterns of health and disease with an emphasis on global health issues. Focuses on three major approaches to medical geographic research: ecological approaches, which systematically analyze relationships between people and their environments; social approaches, including political economy and socio-behavioral approaches; and spatial approaches, which employ maps and spatial analysis to identify patterns of health and disease. Elective course for Public Health Certificate.

Equivalent - Duplicate Degree Credit Not Granted: GEOG 5852

Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).

Recommended: Prerequisites GEOG 1001 or GEOG 1011 and GEOG 1962 or GEOG 1972 or GEOG 1992 or GEOG 2092.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Human Geography

GEOG 4892 (3) Geography of Western Europe

Provides a regional survey of cultural, political, economic, social, and physical geography of Western Europe, emphasizing the distinctive character and problems of each major area and the relationship of the region to the world.

Recommended: Prerequisite GEOG 1962 or GEOG 1972 or GEOG 1982 or GEOG 1992 or GEOG 2092.

Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Human Geography

GEOG 4990 (3) Senior Thesis

Offers thesis research under faculty supervision. Instructor consent required.

Repeatable: Repeatable for up to 6.00 total credit hours.

Requisites: Restricted to students with 57-180 credits (Junior or Senior) Geography (GEOG) majors only.