

GEOGRAPHY (GEOG)

Course numbers with the # symbol included (e.g. #400) have not been taught in the last 3 years.

GEOG 401 - World Regions: Europe and the Americas

Credits: 4

Examines the rich diversity of human life in the following world regions: North America; Middle and South America; Europe; Russia and the post-Soviet states; and Oceania. We will examine the geography of these regions focusing on the following thematic concepts: Environment; Globalization and development; power and politics; urbanization; and population patterns. This course also serves as an introduction to geography.

Attributes: World Cultures(Discovery)

Equivalent(s): GEOG 401H

GEOG 402 - World Regions: Asia and Africa

Credits: 4

Examines the unique integration of human and physical phenomena that produces the distinctive character of the following world regions: the Middle East and North Africa; Sub-Saharan Africa; South Asia; Southeast and East Asia. The course also serves as an introduction to the discipline of geography, with its unique spatial perspective.

Attributes: World Cultures(Discovery)

Equivalent(s): GEOG 402H

GEOG 405 - There Is No Planet B

Credits: 4

Introduces human-environment relations as a central focus of geography, spanning social and environmental sciences. Considers mapping, natural resource use, commons and markets, hazards, political ecology, and land use change. Case studies link core concepts with examples from local to international scales.

Attributes: Environment,TechSociety(Disc)

GEOG 473 - Elements of Weather

Credits: 4

Basic principles of weather phenomena and the physical processes underlying these phenomena. Emphasis on weather patterns of New England. Lab.

Attributes: Discovery Lab Course; Physical Science(Discovery)

GEOG 500 - Making Change: Environmental Justice Practicum

Credits: 4

Provides students with opportunities to link a personal philosophy and professional action plan for environmental justice, thereby bridging understandings of both social justice and environmental conservation. Spanning theoretical and practical perspectives, students will learn basic grant writing skills that are useful in a range of careers, particularly in the non-profit and government sectors.

GEOG 530 - China: People, Politics and Economy

Credits: 4

This course examines China's diverse physical environments, politics, economies, and cultures across the vast territory. Students learn to adopt a relational and spatial perspective to study the contemporary issues in China.

Attributes: World Cultures(Discovery)

Equivalent(s): GEOG #530W

GEOG #530W - China: People, Politics and Economy

Credits: 4

This course examines China's diverse physical environments, politics, economies, and cultures across the vast territory. Students learn to adopt a relational and spatial perspective to study the contemporary issues in China.

Attributes: World Cultures(Discovery); Writing Intensive Course

Equivalent(s): GEOG 530

GEOG 540 - Geography of the Middle East

Credits: 4

Environmental, cultural, political-geographic, and ecological foundations of the Middle East. Selected regional problems and issues, e.g., geographical dimensions of the Arab-Israeli conflict, oil, urbanization, population growth, and nomadism.

Attributes: World Cultures(Discovery)

GEOG 550 - Sub-Saharan Africa: Environmental Politics and Development

Credits: 4

Explores the political ecologies of development in sub-Saharan Africa. Provides a historical and spatial perspective on sub-Saharan Africa's environments and the politics that influence the region's conservation and development choices. Students will critique conventional knowledge, ideas, and explanations to develop a deeper understanding of environment-development linkages in sub-Saharan Africa over time.

Attributes: World Cultures(Discovery)

GEOG 560 - Natural Hazards and Human Disasters

Credits: 4

A survey of natural hazards, including earthquakes, volcanoes, tsunamis, floods drought, hurricanes and severe weather, and the human disasters they cause. The geography of community vulnerability to natural hazards and the factors that influence risk and recovery are also examined.

Attributes: Environment,TechSociety(Disc)

GEOG 565 - Designing Sustainable Places

Credits: 4

Introduces sustainable design of the built environment, including small towns, cities, suburbs, and rural areas. From neighborhood to regional scales, thoughtful place-making can link economic growth, justice, and environmental sustainability. Readings, discussions, writings, and hands-on field visits and design activities integrate human, environmental, and aesthetic perspectives to consider key challenges and identify a range of practical solutions.

GEOG 572 - Geography of the Natural Environment

Credits: 4

Provides an introduction to geography of the natural environment, including landforms, weather and climate, water resources, and biogeography. Examines the processes that shape the different elements of the environment and the relationships between them.

Attributes: Physical Science(Discovery)

GEOG 574 - Global Geomorphology

Credits: 4

A survey of earth's major landforms and the geographic factors that influence their development, distribution, and morphology. Topics include mountain building, river systems, desert migration and expansion, glacial and periglacial environments, and shoreline evolution. Emphasizes how these processes interact to form surface features that are unique to their geographic environment.

Attributes: Physical Science(Discovery)

GEOG 581 - Human Geography

Credits: 4

Differentiation of the world in terms of population, race, language, religion, political territory, and economic life. Collection and critical use of empirical data; emphasis on spatial and ecological analysis.

Attributes: Social Science (Discovery); Inquiry (Discovery)

GEOG 5810 - Human Geography

Credits: 4

Differentiation of the world in terms of population, race, language, religion, political territory, and economic life. Collection and critical use of empirical data; emphasis on spatial and ecological analysis.

Attributes: Social Science (Discovery)

GEOG 582 - Global Trade and Local Development

Credits: 4

This course examines the ways in which global trade interacts with local development across the world. It studies the special organization of economic activities through basic approaches in economic geography. It also studies the history and contemporary state of international competition and collaboration.

Attributes: Social Science (Discovery)

Equivalent(s): GEOG #582W

GEOG #582W - Global Trade and Local Development

Credits: 4

This course examines the ways in which global trade interacts with local development across the world. It studies the special organization of economic activities through basic approaches in economic geography. It also studies the history and contemporary state of international competition and collaboration. Writing intensive.

Attributes: Social Science (Discovery); Writing Intensive Course

Equivalent(s): GEOG 582

GEOG 584 - Political Geography

Credits: 4

Interactions between geographic and political phenomena at the sub-national, national, and international levels. Emphasis on geographical aspects of current political problems within and between states. (Not offered every year.) Writing intensive.

Attributes: Writing Intensive Course

GEOG 590 - Field Research

Credits: 4

Explores a range of research methods, emphasizing collection and analysis of field data to understand human-environment dynamics and/or spatial relations. Topics include ethics, sample design, surveys, interviews, participant observation, and qualitative and quantitative analyses. Students complete hands-on research activities.

Equivalent(s): GEOG 650

GEOG 591 - Making Maps

Credits: 4

Introduces how to make a map from start to finish, designed for students with no background in computer technology. Covers basic knowledge and skills in geographic information system, graphic design, and computer visualization. Walks students through some of the most popular applications for map making.

GEOG 595 - Statistics for Spatial Science

Credits: 4

Introduces elementary statistics to students of social sciences from a spatial perspective. It is designed to help students approach introductory-level quantitative analysis using basic statistical problem-solving techniques with social and physical science data models. These elementary statistical tools and concepts will be explained during classroom lectures and proficiency obtained during practical exercises.

GEOG 658 - Introduction to Geographic Information Systems

Credits: 4

Introduces the use of geographic information systems (GIS) for natural resources and related fields. Data models/structures, map projections, data input/output/storage, data analysis/modeling, interpolation, and data quality/standards. Hands-on lab using ArcGIS software. Students are strongly encouraged to complete an introductory course in statistics before enrolling in course. Restricted to GEOG majors or permission.

(Also offered as NR 658).

Equivalent(s): NR 658

GEOG 670 - Climate and Society

Credits: 4

An introduction to climate science and the interaction between humans and climate. Examines the processes that control climate, the mechanisms that drive climate change, and the impact of climate change on society. Writing intensive.

Attributes: Writing Intensive Course

Equivalent(s): GEOG 570

GEOG #671 - Weather Forecasting

Credits: 4

Examines in depth, the physical processes that govern the development and movement of weather systems. Topics include the relationship between surface and upper-level winds, vertical motion and pressure systems, storm development, and techniques used in weather forecasting.

GEOG 673 - Political Ecology

Credits: 4

Examines human-environment relations through the geographic subfield of political ecology, integrating social and biophysical sciences. Emphasizes cross-scalar relationships in resource decisions and community development, with substantial coverage of rural, non-US contexts. Seminar-style course with regular readings, writings and discussion. Writing intensive.

Attributes: Writing Intensive Course

Equivalent(s): GEOG 573

GEOG 685 - Population and Development

Credits: 4

A regional approach to the study of population geography with concern for the interaction between the focus of economic growth and the components of population change and development. Considers the environmental impact of developing trends in the developed and developing worlds and the relationship of these trends to sustainable growth and population patterns.

Attributes: Writing Intensive Course

GEOG 686 - World Economy and Globalization**Credits:** 4

Emphasizes the spatial development of the world economy and the evolution into today's "globalized" economy. Topical emphasis includes the processes of global economic production changes, the role of transnational corporations, and the role of the state in globalization.

Writing intensive.

Attributes: Writing Intensive Course**GEOG 695 - Internship****Credits:** 1-4

Internships provide an opportunity for on-the-job skill development and practical experience in a closely supervised work setting. The student must provide a written proposal to a supervising faculty member before an internship program is approved. At the end of the semester, the student must make a presentation, provide work samples, or submit a detailed report, log, or portfolio describing the internship experience. Cr/F.

Repeat Rule: May be repeated for a maximum of 8 credits.**GEOG 757 - Remote Sensing of the Environment****Credits:** 4

Practical and conceptual presentation of the use of remote sensing and other geospatial technologies for mapping the environment. The course begins with the use of aerial photographs (Photogrammetry and photo interpretation) and includes measures of photo scale and area, parallax and stereo viewing, object heights, flight planning, photo geometry, the electromagnetic spectrum, camera image analysis, global positioning systems (GPS), and geographic information systems (GIS). Conceptual lectures are augmented with practical homework assignments and hands-on lab exercises. Prereq: Algebra. Special fee. Lab. (Also offered as NR 757).

Equivalent(s): FOR 757, FORS 757, NR 757**GEOG 759 - Digital Image Processing for Natural Resources****Credits:** 4

Introduces digital remote sensing including multispectral scanners (Landsat and SPOT) radar, and thermal imagery. Hands-on image processing including filtering, image display, ratios, classification, registration, and accuracy assessment. GIS as it applies to image processing. Discussion of practical applications. Use of ERDAS image-processing software. Knowledge of PCs required. Prereq: GEOG 757 or equivalent and permission. (Also offered as NR 759).

Equivalent(s): NR 759**GEOG 760 - Geographic Information Systems in Natural Resources****Credits:** 4

This course in geographic information systems (GIS), covers advanced theory, concepts, and applications of GIS for natural resource and related disciplines. Discussion of database structures, data sources, spatial data manipulation/analysis/modeling, data quality and assessment. Students conduct a project of their design exploring aspects of GIS most useful to them. Lecture emphasizes concepts and applications through a text and selected peer reviewed articles. Lab uses the latest version of ArcGIS software and provides hands on experience. Prereq: Introductory GIS course. Permission required. (Also listed as NR 760).

Equivalent(s): NR 760**GEOG 795 - Special Project****Credits:** 2 or 4

Readings, library, archival, and fieldwork. Primarily for geography seniors. Prereq: permission. Writing intensive.

Attributes: Writing Intensive Course**GEOG #796 - Special Topics****Credits:** 4

Special Topics in Geography: A) Climatology, B) Environmental Geography, C) Urban Geography, D) Political Geography, E) Population Geography, F) Economic Geography, G) Cultural Geography.