



Spring 2009

Department of Geography Undergraduate Course Offerings

➤ GECs

Geography 120: Earth Systems 2: Atmospheric Environment 5 Cr.

Introduction to the characteristics and processes of the Earth's atmosphere and their linkage with other physical systems of the planet as well as their linkage with human activity. Students will learn about the physical processes underlying cloud and precipitation formation, hurricanes, thunderstorms, tornadoes, energy transfer, and other weather and climate elements.

Offered several days and times; please see <http://www.ureg.ohio-state.edu/course/spring>; *Night course available (120N)*
B.A. GEC Natural Science Physical Science course OR makes a B.A. Natural Science Sequence with Geology 100.

Geography 200: World Regional Geography 5 Cr.

Surveys the world's major regions: North America, Latin America, Europe, former Soviet Union, Sub-Saharan Africa, North Africa and the Middle East, Asia, Oceania. Focusing on the developmental differences between regions, the course provides an overview of the economic, social, cultural, political, historical, and physical geography of our rapidly changing world.

Offered numerous days and times; please see <http://www.ureg.ohio-state.edu/course/spring>

B.A./B.S. GEC Social Science (Sec. C Human, Natural, and Economic Resources) AND Non-Western Diversity Experience

Geography 210: Physical Geography and Environmental Issues 5 Cr.

This course introduces students to physical geography from an environmental perspective. Students will explore how the earth's atmospheric, oceanic, and terrestrial systems work, and how they interact. How do human activities affect these systems? For example, how do we contribute to climate change, land cover change, ozone depletion, air and water pollution? How can these problems be mitigated?

10322-A L M W 0900-1018A DB 1080

10323-0 B F 0830-0948A DB 1080

10324-5 B F 0230-0348P DB 1080

B.A. GEC Natural Science Physical Science lab course

Geography Major Track Requirement For: URS or GIS Physical Geography; PSE Methods Core (can not be used for both major and GEC)

Geography 240: Economic and Social Geography 5 Cr.

Studies the location of economic activities at different scales (household, industry, government) by examining how people earn their living, if livelihood systems vary by area, and how economic activities are spatially linked. Discusses the dynamic changes within the global economy that create changes in national economies with respect to industrial configuration; technological change; regional resources; and international movements of goods, capital, people, and information.

10325-1 L T R 1030-1218A BE 0120

B.A./B.S. GEC Social Science (Sec. C Human, Natural, and Economic Resources) AND Diversity Experience (Sec. B)

Geography 400: Geography of the US and Canada 5 Cr.

A regional geographic survey of the United States and Canada from a human geography perspective. Subjects in the course include urban and rural landscapes, human-environment problems, economic issues, and historical development of peoples and places.

10327-1 L T R 1000-1148A PA 0020

B.A./B.S. GEC Diversity Experience (Sec. A Social Diversity in the United States) AND Upper Division credit

Geography Major Track Requirement For: URS Regional Geography or Required Elective

Geography 460: Political Geography 5 Cr.

From the local politics of sprawl to debates about globalization, this course looks at political patterns and processes from a geographical perspective. Focusing on relationships between power and territory, we will investigate the development of the current map of nation-states, dynamics of uneven development, and cultural politics of place and identity

10331-7 R T R 0930-1118A HC 0162

B.A./B.S. GEC Social Science (Sec. B Organizations and Policies) AND Upper Division credit

Geography Major Track Requirement For: URS Systematic or Required Elective (can not be used for both major and GEC)

Geography 597.01: World Urbanization 5 Cr.

This course examines world urban development by ten major world regions: North America, Europe, Post-Soviet Realm, Oceania, Latin America, Sub-Saharan Africa, North Africa and the Middle East, South Asia, Southeast Asia, and East Asia. Cross-regional comparisons examine the evolution of urban systems, distinctive major urban centers, and contemporary problems and solutions. Concepts explained in the course include urbanism, urbanization, the hierarchy of cities and metropolitan areas, world cities, sites and situational characteristics, and urban functions.

10335-9 L T R 0930-1118A BO 0436

10336-4 L M W 1130-0118A RA 0065

10337-0 L M W 0130-0318P RA 0065

10338-5 L T R 0130-0318P SO 0040

Offered several days and times; please see <http://www.ureg.ohio-state.edu/course/spring>

B.A. Issues of the Contemporary World AND B.A./B.S. Upper Division credit (Usually fills up fast—register early!)

Geography Major Track Requirement For: URS Required Elective (can not be used for both major and GEC)

➤METHODS & SPATIAL ANALYSIS: SKILLS IN DEMAND**Geography 580: Elements of Cartography 5 Cr.**

This course introduces the art, science, and technology of making maps. We will focus on concepts and methods that are essential to the design and construction of digital maps using geographical information systems. Upon completion of this course, students are expected to have a basic understanding of maps, and will be able to produce them as tools for later professional work.

10333-A L M W 0830-1018A DB 0140

10334-3 B M W 1030 A DB 0140

B.A./B.S. Upper Division credit. Geography Major Track Requirement For: URS; GIS; PSE Required Method Elective

Geography 607: Fundamentals of Geographic Information Systems 5 Cr.

The course is designed to give students an understanding of geographic information systems (*i.e.*, computer mapping and spatial analysis), their capabilities, uses, and limitations. The course will be team-taught. Relevant applications for each discipline area are demonstrated in the computer laboratory portion.

10339-A L T R 1030-1148A DB 1080

10340-0 B T 0230-0418P DB 0140

10341-5 B R 0230-0418P DB 0140

B.A./B.S. Upper Division credit. Prerequisite: Geography major or permission. Cross-listed with several other departments.

Geography Major Track Requirement: URS; GIS; PSE Core

Geography 686: GIS in Social Science and Business Research 5 Cr.

Application of GIS technology to the analysis of small area statistical data is illustrated through laboratory exploration of social science and business research problems

10347-A L M W 1230-0218N DB 0140

10348-3 B F 1230-0218N DB 0140

B.A./B.S. Upper Division credit.

Prerequisite: Geography 685. Geography Major Track Requirement For: GIS; URS Required Elective

➤ ISSUES IN GEOGRAPHY

Geography 294: Group Studies. Global Politics and the Modern Geopolitical Imagination

This course will examine key schools of geopolitical thought in the 20th century as well as major conflicts that have shaped the historical and geographical definition of the term. Issues such as environmental security, migration, oil and United States geostrategy will be discussed.

10326-6 L T R 1230-0218N DB 1116

Geography 445: Transportation Security 5 Cr.

The transport of people, commodities, and finished products is a necessary function in a globalizing world. The spatial analysis of these flows and linkages must now be considered the threats and vulnerabilities created by these geographically complex systems. This course will examine these issues in relation to cost related to security measures, the dangers of transportation systems, and the actual infrastructure of transportation systems.

10329-2 L T R 0330-0518P PA 0020

B.A./B.S. Upper Division credit.

Geography 450: Making of the Modern World 5 Cr.

The geographies of modernity and their formation: the world market, the global polity, colonialism, the transformation of nature, Euro-centricity, post-modernity.

10330-1 L M W 1030-1218A DB 1080

B.A./B.S. Upper Division credit

Geography Major Track Requirement: URS Systematic or Required Elective

Geography 630: Conservation of Natural Resources 5 Cr.

The last two decades have brought a long-standing clash of ideas about natural resource conservation to a head. While regulations for many materials and ecosystems are strong, other resources remain unregulated or are threatened with deregulation. The will to manage and protect runs alongside the urge to exploit, utilize, and acquire. The result is a fractured policy landscape with no single path or logic. This class seeks to explore the environmental systems that form the nation's resources and the policies that guide their use and conservation.

10343-6 L T R 1030-1218A DB 1116

B.A./B.S. Upper Division credit

Geography 645: Geography of Transportation 5 Cr.

Survey and introduction to the basic methods in the spatial analysis of transportation networks. The course is a logical treatment of the building blocks of a transport system (nodes, links, hinterlands, and hierarchies) and encourages a determined and systematic attack on many applied transport problems. The core concepts are space price equilibrium, the gravity model, the linear programming model problem for optimal allocation, network analysis, and urban transportation planning.

10344-1 L T R 0830-1018A DB 0140

B.A./B.S. Upper Division credit; **Open to undergraduates only.**

Geography Major Track Requirement For: URS Systematic or Required Elective; GIS Human Geography

Geography 650: Urban Geography 5Cr.

We live in a largely urban country in a rapidly urbanizing world. The cities that constitute this world are vibrant, diverse, and continually changing. This class will help you understand various cities and how processes that originate in them shape your life. It will provide an overview of current geographical theories about urban society through a variety of case studies of urban life.

10345-7 L M W 0230-0418P DB 1080

B.A./B.S. Upper Division credit

Geography 670: Population Geography 5 Cr.

Analysis of population distributions, locational arrangements of growth, densities, and migration flows; spatial relationships between population variables and social, economic, and environmental factors.

10346-2 L T R 1230-0230N DB 0140

B.A./B.S. Upper Division credit

Geography 695: Undergraduate Seminar in Applied Geography 5 Cr.

This course focuses on how to conduct research to understand the relationship between humans and their environment. Students will learn how to develop, plan for, and execute a research project while exploring a variety of methods for data construction and interpretation. Students interested in pursuing graduate work will find the course a good introduction to self-directed research, 'fieldwork,' and proposal-writing. For other students, the course will offer the chance to develop skills that typically enhance employment opportunities, including formal presentation techniques, c.v. construction, and independent research methods.

10380-2 S M W 1230-0218N DB 1116

B.A./B.S. Upper Division credit

➤CLIMATE & ATMOSPHERIC SCIENCE**Atmospheric Science 230: Basic Meteorology 5 Cr.**

Introduction to the underlying physics of the atmosphere; basic equations of thermodynamics, radiation, and dynamics are presented and used to explain selected atmospheric phenomena. The course serves as the first in the atmospheric-climate studies track of the Geography B.S. degree.

02669-5 D MTWRF 1230 N DB 1080

Prerequisites: Math 152 and Physics 132 or instructor permission.

Geography Major Track Requirement: ATS

Geography 520: Climatology 5 Cr.

This course serves as an introduction to the characteristics, spatial distribution, and physical causes of both the day-to-day weather and the climates of the world. It explains the mechanisms behind observed weather phenomena and emphasizes the role of matter and energy exchanges that take place in our environment in producing weather features. The current and past distributions of global climate are described and explained

D T R 1030-1218A DB 0140

10332-2 F 1030-1218A DB 1080

B.A./B.S. Upper Division credit

Geography 623.02: Severe Storm Forecasting by Radar and Satellite 5 Cr.

The theory and application of radar and satellite imagery in weather forecasting; emphasis on severe thunderstorms, tornadoes, and hurricanes; analysis of their evolution and structure.

L M W 0230-0418P DB 0140

10342-1 B F 0230-0418P DB 0140

B.A./B.S. Upper Division credit. Prerequisites: Geography 520, 623.01; Physics 132

Atmospheric Sciences 638: Dynamic Meteorology 2 5 Cr.

Advanced problems in dynamic meteorology; use of the equations of motion in numerical models of the atmosphere, especially those used by the National Weather Service.

02670-4 D MTWRF 0130 P DB 1080

B.A./B.S. Upper Division credit. Prerequisites: Math 255 or 415, Physics 132, and Atmospheric Science 637

Interested in becoming a geography major or minor?

**For more information, contact:
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