

GEOGRAPHY

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**Sabbatical: Spring 2008*

GEOGRAPHY MAJOR

The General Education Requirement

All students must satisfy a general education requirement consisting of eleven (11) courses outside of the major department (see page 59). The General Education Goal 11 (Non-Western Studies) requirement is satisfied through the completion of the Geography major.

Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

Departmental Requirements for Major:

Core Courses (5 Courses):

- 22.101 Introduction to Human Geography
- 22.110 World Regional Geography
- 22.203 Introduction to Physical Geography
- 22.214 Geographical Techniques – Quantitative Methods
- 22.216 Introduction to Geographical Information Systems

Geography majors must concentrate in a specialization within the major. The concentrations shown below are designed to prepare a student for a career or further study in geography. Selections of a concentration should be made as early as possible with an advisor. Students are also strongly encouraged to develop foreign language and computer skills. Geography majors may complete an approved minor through a combination of five (5) related elective courses and/or free electives. This is to be done in consultation with the student's advisor. **Note:** Regional geography courses, other than 22.110 World Regional Geography, are strongly recommended as related courses or free electives.

CONCENTRATIONS:

URBAN AND REGIONAL PLANNING (GYP)

Advisors: Najjar, Donnell, Hakansson

Required (7 courses)

- 22.235 Environmental Law and Policy
- 22.240 Municipal Land Use
- 22.260 Introduction to Urban Studies and Planning in the United States
- 22.339 Methods for Planning Analysis and Plan Making
- 22.368 Community Development
- 22.370 Location Theory
- One additional Regional Geography course

Related: Choose four (4) courses in consultation with the concentration advisor (substitutions may be made with the approval of the Geography Department Chair).

- 22.114 Geographical Techniques – Research Methods
- 22.180 Native Americans: A Geographical and Legal Perspective
- 22.201 Economic Geography
- 22.206 Political Geography
- 22.211 Cultural Geography
- 22.215 Religion as a Geographic Phenomenon
- 22.222 Geographic Perspectives on Globalization
- 22.225 Population, Food, and Global Development
- 22.230 Geography of Natural and Man-Made Hazards
- 22.235 Environmental Law and Policy
- 22.375 Resource Management
- 22.490 Internship in Geography*
- 73.233 Environmental Geology for Town and Regional Planning
- 62.325 Public Management
- 52.251 Urban Sociology
- 12.230 Urban Economics

* *Must be approved according to department guidelines.*

ENVIRONMENTAL STUDIES (GYE)

Advisors: Donnell, Najjar, Abdelgadier

Required (7 courses)

- 22.212 Geographic Perspectives on the Environment
- 22.225 Population, Food, and Global Development
- 22.230 Geography of Natural and Man-Made Hazards
- 22.235 Environmental Law and Policy
- 22.339 Methods for Planning Analysis and Plan Making
- 22.375 Resource Management
- One Additional Regional Geography Course

Specified General Education Course: choose one: 73.246 Oceanography (goal 6) **or**
73.231 Physical Geology (goal 6, Lab.)

Related: Choose four (4) courses in consultation with the concentration advisor (substitutions may be made with the approval of the Geography Department Chair).

- 22.114 Geographical Techniques – Research Methods
- 22.180 Native Americans: A Geographical and Legal Perspective
- 22.201 Economic Geography
- 22.206 Political Geography
- 22.211 Cultural Geography
- 22.215 Religion as a Geographic Phenomenon
- 22.222 Geographic Perspectives on Globalization
- 22.240 Municipal Land Use
- 22.260 Introduction to Urban Studies and Planning in the United States
- 22.490 Internship in Geography*
- 73.233 Environmental Geology for Town and Regional Planning
- 23.103 Ecological Implications of Conservation
- 23.200 Introduction to Environmental Science
- 23.203 Plants and Society
- 23.316 Wetlands: Hydrology, Ecology, Restoration
- 23.335 Principles of Wildlife Biology
- 53.241 Introduction to Meteorology

* *Must be approved according to department guidelines.*

GLOBAL STUDIES (GYG)**Advisors: Najjar, Donnell, Abdelgadier, Hartwick****Required (7 courses)**

- 22.201 Economic Geography
- 22.206 Political Geography
- 22.211 Cultural Geography
- 22.222 Geographic Perspectives on Globalization

Three (3) of the following regional courses:

- 22.250 Geography of the United States and Canada
- 22.251 Geography of New England
- 22.252 Geography of Europe
- 22.253 Geography of Russia and the Former Soviet Republics
- 22.254 Geography of Monsoon Asia
- 22.255 Geography of Subsaharan Africa
- 22.256 Geography of the Middle East
- 22.257 Geography of Latin America

Related: Choose four (4) courses in consultation with the concentration advisor (substitutions may be made with the approval of the Geography Department Chair).

- 22.114 Geographical Techniques – Research Methods
- 22.180 Native Americans: A Geographical and Legal Perspective
- 22.215 Religion as a Geographic Phenomenon
- 22.222 Geographic Perspectives on Globalization
- 22.230 Geography of Natural and Man-Made Hazards
- 22.235 Environmental Law and Policy
- 22.240 Municipal Land Use
- 22.260 Introduction to Urban Studies and Planning in the United States
- 22.375 Resource Management
- 52.161 Introduction to Cultural Anthropology
- 62.120 Introduction to World Politics
- 12.100 Contemporary Economic Problems and Issues

GEOGRAPHY WITH COORDINATE MAJOR IN EARLY CHILDHOOD OR ELEMENTARY EDUCATION (GYL)**Required (6 courses)**

- 22.201 Economic Geography
- 22.206 Political Geography
- 22.211 Cultural Geography
- 22.250 Geography of the United States and Canada **or**
- 22.251 Geography of New England

Two (2) of the following regional courses:

- 22.250 Geography of the United States and Canada
- 22.251 Geography of New England
- 22.252 Geography of Europe
- 22.253 Geography of Russia and the Former Soviet Republics
- 22.254 Geography of Monsoon Asia
- 22.255 Geography of Subsaharan Africa
- 22.256 Geography of the Middle East
- 22.257 Geography of Latin America

Education courses (choose A or B)**A. Coordinate Major in Early Childhood Education (Pre-K - Grade 2 Licensure)**

- 14.200 Education in American Society with Field Study I
- 42.200 Psychology of Development (Gen. Ed.)
- 14.320 The Young Child: Emerging Literacy with Field Study II
- 14.374 Early Childhood Curriculum: Mathematics and Science with Field Study III
- 14.376 Early Childhood Curriculum: Reading, Social Studies, and Special Needs

The Professional Semester (four courses):

- 14.431 Early Childhood Professional Practicum A (Credit—two course credits)
- 14.432 Early Childhood Professional Practicum B (Credit—two course credits)

B. Coordinate Major in Elementary Education (Grades 1 - 6 Licensure)

- 14.200 Education in American Society with Field Study I
- 42.200 Psychology of Development (Gen.Ed.)
- 14.322 The Child and Literacy with Field Study II
- 14.341 Elementary Curriculum: Mathematics with Field Study III
- 14.346 Elementary Curriculum: Science, Social Studies and Special Needs

The Professional Semester (four courses):

- 14.437 Elementary Professional Practicum A (Credit—two course credits)
- 14.438 Elementary Professional Practicum B (Credit—two course credits)

Note: 14.200 and 42.200 may be used to fulfill the college requirement for general education.

EARTH SCIENCE WITH MIDDLE SCHOOL EDUCATION MINOR (GYS)

Advisor: Chon (Physics and Earth Sciences Department)

Geography Course (1 course)

- 22.250 Geography of the United States and Canada or
- 22.251 Geography of New England

Earth Science and Related Courses (7 courses):

- 33.103 General Chemistry
- 53.241 Introduction to Meteorology
- 53.251 Introduction to Astronomy
- 73.231 Physical Geology
- 73.232 Historical Geology
- 73.246 Oceanography
- 73.331 Regional Field Geology

Elective (1 course): Selected from the natural sciences, mathematics, computer science, or another regional geography course other than 22.250 Geography of the United States and Canada or 22.251 Geography of New England

Specified General Education courses (4 courses):

- 23.101 Biological Concepts
- 42.200 Psychology of Development
- 43.200 Precalculus
- 53.201 Introductory Physics

Education Minor courses (8 courses):

- 14.200 Education in American Society with Field Study I
- 14.316 Professional Preparation and Field Study II (two course credit credits)
- 14.414 Student Teaching Practicum and Seminar I (two course credit credits)
- 14.415 Student Teaching Practicum and Seminar I (two course credit credits)

Note: Geography Department prerequisites for 14.316 Professional Preparation and Field Study II: Methods, Special Education, and Technology - Middle School are completion of:

General education requirements

All mathematics and science requirements of the major except for the single approved elective.

Department prerequisites for 14.414-15 Student Teaching Seminar and Practicum I and II - Middle School are the same as above, plus 14.316 Professional Preparation and Field Study II - Middle School.

INTERDISCIPLINARY MAJOR

The Geography Department sponsors the Interdisciplinary Major in Geography and Earth Science for students seeking licensure at the early childhood or elementary level. For more specific information, refer to the Education section of the catalog.

MINOR IN GEOGRAPHY (5 COURSES)

22.101 Introduction to Human Geography

22.212 Geographic Perspectives on the Environment

A regional geography course

Two additional geography courses other than regional geography

MINOR IN LATIN AMERICAN STUDIES (5 COURSES) (SEE PAGE 54)

GEOGRAPHY COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)

Courses	Goal(s)
22.101 Introduction to Human Geography	9
22.110 World Regional Geography	9, 11
22.135 Introduction to Environmental Studies	10
22.180 Native Americans: A Geographic and Legal Perspective	10
22.206 Political Geography	9, 12
22.211 Cultural Geography	9
22.222 Geographic Perspectives on Globalization	11
22.225 Population, Food, and Global Development	12
22.235 Environmental Law and Policy	10
22.250 Geography of the United States and Canada	10
22.252 Geography of Europe	12
22.253 Geography of Russia and the Former Soviet Republics	11
22.254 Geography of Monsoon Asia	11
22.255 Geography of Sub-Saharan Africa	11
22.256 Geography of the Middle East	11
22.257 Geography of Latin America	11, 12
22.290 Non-Western Regional Geography: Field Study	11

COURSE DESCRIPTIONS

22.101 Introduction to Human Geography (Gen. Ed. Goal 9)

An introduction to geography, focusing on its relevance to contemporary man. Emphasis is placed on basic concepts and the geographic point of view

22.110 World Regional Geography (Gen. Ed. Goals 9, 11)

An introduction to the nature and scope of geography, the techniques and applications of geography, and the geographical context of current social, economic, political, and environmental problems in the major regions of the world. Course focuses mainly on non-Western regions.

22.114 Geographical Techniques - Research Methods

A basic introduction to the skills and techniques needed by geographers. Course includes essentials of map reading, interpretation, data collection and entry, questionnaire design and administration, spatial sampling design, research statement hypothesis formulation, research management, and proposal writing.

22.135 Introduction to Environmental Studies (Gen. Ed. Goal 10)

An introduction to the political, economic, ethical, cultural, scientific, and geographical conditions that have framed environmental issues in the United States. Critical analysis of specific environmental issues such as over-fishing, deforestation, nuclear sites, and air pollution will be used for examination of environmental policies and the many variables that affect these policies.

22.180 Native Americans: A Geographical and Legal Perspective (Gen. Ed. Goal 10)

An introduction to Indian law and the unique relationship between the tribes and the federal and state governments. This body of law can have radically different effects on tribes depending in part on their geographical location. The course then examines certain tribal issues in depth, and explores how the geographical location of the tribe and the corresponding climate and terrain make these issues unique to the tribe.

22.201 Economic Geography

An introduction to geography as a social science focusing on the spatial organization of man's economic activities. Emphasis is on factors influencing their occurrence and distribution, and on the geographical problems of selecting the best location or the best use of a given location for agriculture, manufacturing, and service activities.

Prerequisite: Sophomore standing.

22.203 Introduction to Physical Geography

A geographical analysis of the physical phenomena and processes on the surface of the earth, emphasizing weather elements, patterns of climate and vegetation, soil, water features, landforms, and topography.

22.206 Political Geography (Gen. Ed. Goals 9, 12)

A spatial analysis of the rise of the nation state and a comparative examination of political structures and processes within states. Geopolitical processes, such as imperialism, are studied through time and space. The formation of new types of political and social movements at a number of global and local levels is discussed. In addition, the role of class, race, and gender is explored as it relates to issues of power and uneven access to power over space.

22.208 Medical Geography

An examination and analysis of the spatial aspects of such health-related issues as disease ecology and healthcare services. The course applies geographical information, perspectives, and methods to the study of health, disease, and healthcare. The course begins with a discussion of disease ecology, or how human behavior, in its cultural and socioeconomic context, interacts with environmental conditions to cause morbidity and mortality. Students use geographic information systems (GIS) to trace the linkages between disease agents, disease vectors, and their hosts, and the diffusion of disease. The course also addresses the spatial distribution, and access and utilization of medical personnel and facilities.

22.211 Cultural Geography (Gen. Ed. Goal 9)

A study of spatial variations among cultural groups and the spatial functioning of society. The course focuses on contemporary issues related to the ways language, religion, economy, government, and other cultural phenomena vary or remain constant from one place to another. The study of cultures is organized around five themes: cultural region, diffusion, ecology, integration, and landscape.

22.212 Geographic Perspectives on the Environment

An introductory survey stressing the geographic approach to the study of man/land relationships. Emphasis is placed on the impact of human activities on the environment and on conflicts between resource exploitation and environmental quality. Contemporary geographic themes concerning the environment: perception, natural resource utilization, modification by urbanization, and environ-

mental regions are studied. Particular focus is on New England and the United States.

Prerequisite: Sophomore standing or permission of instructor.

22.214 Geographical Techniques - Quantitative Methods

A basic introduction to the skills and techniques needed by geographers. The course focuses on geographic applications of quantitative methods and uses the Statistical Package for the Social Sciences (SPSS) and Geographic Information Systems (GIS) software for analysis and presentation of data.

22.215 Religion as a Geographic Phenomenon

A study of religious systems and their geographic characteristics; religious organization of space; origins of organized religions; distribution of religions; attitudes towards contemporary ecological problems conditioned by religious ideology; and comparisons of such attitudes between ancient patriarchal nature religions and more modern patriarchal religions.

22.216 Introduction to Geographical Information Systems

An introduction to the use of Geographical Information Systems (G.I.S.) in analyzing spatial data, including methods of data acquisition, and the theory and design of G.I.S. storage and to various aspects of retail location, urban planning, and environmental concerns.

Prerequisite: Prior knowledge of computers, with permission of instructor, or 63.120 Introduction to Information Technology.

22.222 Geographic Perspectives on Globalization (Gen. Ed. Goal 11)

An examination of globalization as a spatial process. Economic, social, political, and cultural analyses are integrated to look at geographically uneven development, the spatial expansion of power systems, which take many forms, and economic and environmental issues between nation states and global governance institutions.

22.225 Population, Food, and Global Development (Gen. Ed. Goal 12)

A critical examination of a fundamental problem facing contemporary civilization: how to address the relationship between the increasing size of the global population and limited natural resources. The availability, production and consumption of food in particular, are fraught with problems subject to debates and ideological positionings. These particularly concern inequities of race, class, and gender embedded in power relationships between Third world producers and First world consumers.

Alternative analyses are presented using development theory and commodity chain analysis to look at global uneven development through the connections between food consumption in the global core with food production in the global periphery. The course concludes by looking at the emergence of social movements, which attempt to connect Third World agricultural producers with First World consumers.

22.230 Geography of Natural and Man-Made Hazards

A geographical analysis of selected hazardous conditions of the natural and man-made environment at global, regional, and local levels. In a given semester, the course may emphasize natural or man-made hazards. Specific natural hazards covered include earthquakes and volcanoes; hurricanes, tornadoes, and severe storms; coastal flooding and erosion; and river flooding. Specific man-made hazards include nuclear power plants, toxic wastes, transportation and treatment of hazardous materials, structure fires and arson, and terrorism. Field trips are included.

22.235 Environmental Law and Policy (Gen. Ed. Goal 10)

Designed for the non-legal student whose interest in the environment or whose field of present or future employment would be enhanced by a basic understanding of legal and policy matters as they apply to the environment. The course begins with a discussion of the judicial system, followed by an introduction to the concepts of administrative and common law. The course addresses the National Environmental Policy Act, the Clear Air Act, the Clean Water Act, and the various hazardous waste statutes. The course applies this body of law to current environmental issues addressing the political, economic, cultural, and ethical variables that influence environmental policy in the United States.

22.240 Municipal Land Use

An overview of legal and policy matters as they apply to land use in local municipalities. Topics include zoning and subdivision regulations, wetland protection, comprehensive permits, and protection of open space.

22.250 Geography of the United States and Canada (Gen. Ed. Goal 10)

A broad regional survey of the natural and cultural landscape features of the United States and Canada, with emphasis on processes of urban-economic development and changing patterns of population, settlement, and land use.

22.251 Geography of New England

A survey of the natural landscape features and the present geographical development of New England as a representative region of the United States. Emphasis is on the emerging patterns and issues of the region's economic and urban development and how it interacts with North America and the world. Field trips.

22.252 Geography of Europe (Gen. Ed. Goal 12)

An examination of the geographical factors that have contributed to the natural and cultural landscape of modern Europe, excluding the former U.S.S.R. The course extensively addresses issues of gender, race, and social class as they relate to demographic and economic changes in Europe.

22.253 Geography of Russia and the Former Soviet Republics (Gen. Ed. Goal 11)

A regional survey of the fifteen successor states of the Soviet Union. Emphasis is on the changing patterns of economic and cultural geography.

22.254 Geography of Monsoon Asia (Gen. Ed. Goal 11)

An analysis of Southern, Southeastern and Eastern Asia in terms of their natural environment, population distribution and problems, regional divisions, and current problems of economic development.

22.255 Geography of Sub-Saharan Africa (Gen. Ed. Goal 11)

An examination of the physical and cultural landscape of Africa south of the Sahara, with special emphasis on the native cultures of the area and their influence on the landscape; the revolutionary effects of European interventions and conquests; and the modern political, cultural, and economic climates.

22.256 Geography of the Middle East (Gen. Ed. Goal 11)

Physical, cultural and political environments which contribute to the instability that exists in Southwest Asia and North Africa.

22.257 Geography of Latin America (Gen. Ed. Goals 11, 12)

An exploration of Latin America's cultural, political, and economic characteristics. Issues of development, gender, and changing position in the global system are examined. Particular attention is paid to the pre-Columbian historical geography of the continent and the problems presently facing indigenous peoples.

22.260 Introduction to Urban Studies and Planning in the United States

A survey and analysis of the geographic forces that necessitate urban planning in the United States. Topics covered include the history of urbanization and planning in the United States, the geographic study of cities and towns with emphasis on the origins and problems of urban sprawl, and various other urban problems of American cities and towns that necessitate land use planning and zoning. Local field trips are included.

22.290 Non-Western Regional Geography: Field Study (Gen. Ed. Goal 11)

An exploration of a non-Western geographical region through an actual field study. The focus is on the physical and cultural geography of the visited area, with special emphasis on the significance of historical, cultural, and recreational sites on the changing patterns of economic, political, and cultural geography. Location is announced when offered.

22.339 Methods for Planning Analysis and Plan Making

A focus on the specific techniques of city plan preparation and presentation, and on the methods of involving local citizens in the planning process. Among the techniques included are site analysis, field surveys, mapping and graphics for data presentation, and organizing public participation workshops. Computer applications for planning are surveyed.

22.368 Community Development

An examination of the methods of community development including industrial promotion, retail revitalization, downtown renewal, and tourism development. Emphasis is on techniques to assist and encourage business growth and retention. Field trips and practical exercises including preparation of community development handbooks are included.

Prerequisite: 22.201 Economic Geography or permission of the instructor.

22.370 Location Theory

A survey of the classical and current location theories, which are used by geographers, planners, and site analysts. Location theories include agricultural, industrial, retail, and service locations. Concepts, methods, and techniques of spatial distribution, spatial function, and spatial relationships are emphasized. Cartographic analysis and GIS applications are major parts of the course.

Prerequisite: 22.201 Economic Geography or permission of instructor.

22.375 Resource Management

An analysis of resource control methodologies. Emphasis is on territorial and developmental impacts of political decisions regarding resources, conflicts between technological and ecological approaches to environment quality, national and international aspects of resource exploitation and utilization. This course includes preparation of environment impact statements, study of laws relating to the use and abuse of the environment, and field trips.

Prerequisite: A course on environment or permission of the instructor.

22.400 Cosmos (Specific title to be announced when offered)

An analysis of a contemporary social, economic, environmental, or regional problem from a geographic perspective. The specific focus of the course varies but emphasis is always placed on the geographer's contribution to understanding the issues involved.

Prerequisite: Permission of instructor may be required.

22.490 Internship in Geography

A supervised practical experience in a public or private agency, appropriate to the student's training and interests. Admission to this course must be approved by the Geography Department according to published departmental guidelines.

22.495 Independent Study in Geography

A Geography major (or minor) with demonstrated ability to use geographical tools and research methods may independently pursue an in-depth investigation of a geographic topic under the guidance of a faculty advisor. The student must present a written request on the approved form. Admission to this course must be approved by the Geography Department at least three weeks prior to registration.