

## COURSES

Unless otherwise noted, all courses are 3 credits.

### **GEO 150 World Regional Geography**

A survey of the physical and human geographic patterns, providing a comprehensive background discussion of individual regions of the globe. Each region is analyzed in terms of its environmental base and resource distribution, population growth characteristics, culture, agricultural systems and rural development, industrialization, and urbanization, and political trends.

### **GEO 160 Introduction to Physical Geography**

An introductory course using a process-distribution approach to explain weather systems, climates of the world, biogeography, soils, and landforms. An accompanying lab introduces topographic map reading, weather and climate analysis, and geomorphology.

4 credits

### **GEO 203 Introduction to Geographic Information Systems and Techniques**

This course will introduce students to basic techniques and principles in geographic information systems including collection, management, analysis, and mapping of geographic data. Use of GIS software is an integral part of the course. Cartography experience is recommended but not mandatory.

Prerequisite: GEO 150 or GEO 160

### **GEO 220 Environment and Humans**

This course offers an examination of man's impact on the environment with particular emphasis on the processes of ecological change and the effects on the environment. Emphasis is placed on the 20<sup>th</sup> and 21<sup>st</sup> century changes and contemporary public issues.

Prerequisite: GEO 150 or permission of instructor

### **GEO 230 Population and Settlement Geography**

A geographic interpretation of the world's population, distribution, composition and dynamics. Special emphasis is placed on the relationships between population and geographic, economic, resource, social, and policy issues.

Prerequisite: GEO 150 or permission of instructor

### **GEO 300 Geopolitics**

This course will provide students with an understanding of the relationship between politics and physical and human geography through the use of geographical techniques and insights developed in the field of politics. The influence of such factors as location, size, form, natural

resources and population on the political development of nations and their roles in world politics will be examined.

Prerequisite: GEO 150

### **GEO 310 Trade and Transportation Geography**

A study of the theory of international commodities trade; commercial policies and agreements among world's trading nations. The course also examines the role of transportation in determining movement and marketing of goods and international trade patterns, and payments.

Prerequisite: GEO 150

### **GEO 320 Cultural Geography**

A study of present day cultures and their physical environment, with emphasis on the spatial analysis of population distribution, religions, economic development, technology, organization of urban and rural societies, and the varying impacts of cultures on environments.

Prerequisite: GEO 150 or permission of instructor

### **GEO 321 Economic Geography**

Economic geography attempts to answer a number of basic questions: Where is economic activity located? Why is economic activity located where it is? Where are human and natural resources located and how are they used? The course will introduce students to the extremely broad field of economic geography using a variety of descriptive and theoretical approaches. It will focus on the examination of the location of economic activities in the United States and other parts of the world and the discussion of the different ways for accounting for that location. Various elements of the natural, economic, social and political environments are considered and their relative importance to the distribution of the economic activities analyzed.

### **GEO 331 The Geography of Asia**

This course will provide a sound understanding of the changing geography of Asia and the region's position within the global economy. Emphasis will be placed on a geographical analysis of the region's physical features, natural resources, cultural patterns, population, politics, and economic development potential and problems.

Prerequisite: GEO 150

### **GEO 332 The Geography of the Middle East**

This course will pursue an understanding of those elements that characterize this region and define its position in the world, as well as those features that are distinct and mark different peoples and places. It will examine local, national and international issues relating to identity and status, history, economy, environment and other topics in an attempt to create a portrait of life in many areas of the region.

Prerequisite: GEO 150

### **GEO 333 The Geography of Europe**

The course presents an analysis of Europe's physical features, natural resources, cultural patterns, environmental and political problems, and economic potential. Emphasis is placed on Europe's cultural, economic and political spatial patterns relating to the economic problems of

European nations. The course offers the opportunity to focus on the common characteristics and shared problems of the members of the European Union so as to enable participants to better examine the prospects and problems of EU, in the context of geographic relationships underlying land utilization, boundary disputes, economic organization, and the dominant international relations of Europe and the global community.

Prerequisite: GEO 150

### **GEO 334 The Geography of Africa**

A systematic study of the physical, cultural, economic, and political geography of Africa. Topics covered include the physical environment and the resource base, demographic characteristics and population factors of growth; culture, the impress of colonialism, agricultural and resource development; cash crops and foreign trade, impact of aid and structural adjustment policies, industrialization and external economic ties, internal civil conflicts, regional contradictions, and outside involvement.

Prerequisite: GEO 150

### **GEO 335 The Geography of Latin America**

The course emphasizes Latin America's unique physical features, natural resources, demographic characteristics, and cultural patterns; the impact of European colonial expansion upon native societies, land tenure and modernization of the rural sector, cash crops and development, mining and industrialization, the growth of cities, foreign debt, and structural adjustments and development. The course also examines relationship patterns between Latin America and the United States.

Prerequisite: GEO 150

### **GEO 336 The Geography of the Commonwealth of Independent States (CIS)**

This course will pursue an understanding of those elements that characterize this dynamic region. Emphasis will be placed on the changing concept of Russia and the former Soviet block in the global economy, recent reforms and trends in economic and political spheres, ethnic conflicts, relations between republics and urban problems.

Prerequisite: GEO 150

### **GEO 338 The Geography of United States and Canada**

United States and Canada have a common heritage and geographical contiguity, which has produced commonality of culture and mutual interdependence. Yet there are clear-cut distinctions between the two countries. This course provides a basis for understanding these two countries by studying their geographical similarities and differences. Emphasis is given to the identification and interpretation of spatial patterns and processes associated with resources, economic structure, settlement patterns, population, urbanization and ethnicity.

**GEO 339      Geography of New Jersey**

A geographical analysis of the physical features, natural resources, population characteristics, cultural patterns, and economic potential of New Jersey. The course also covers immigration and its impact on social, economic and political life; environmental degradation and contamination and its effects on health and wellbeing; urbanization and the poverty and pollution associated with it; the relations between New York City and New Jersey; and New Jersey's past and current contributions to the economic growth and development of the country.

Prerequisite: GEO 150 or GEO 338

**GEO 341      The Geography of North American Cities**

This course is organized into two parts as follows: The first part will examine basic concepts and theories in urban geography. The second part explores historical and recent trends in the development and growth of North American cities and suburbs, and the internal structure and socioeconomic characteristics of cities and suburbs.

**GEO 441      Urban Planning Issues in America**

This course will examine the dynamics of urbanization in North America, and on key issues and problems arising from urban growth as well as their planning implications. Specific urban issues to be explored included urban housing, transportation, urban poverty and inequalities, inner city decline, economic decentralization, suburbanization, urban sprawl, sustainable urban development, and urban management.

**GEO 360      The Geography of Hunger and Food Supply**

Introduces issues raised by large scale/global hunger. The course focuses on worldwide and local perspectives regarding the nature, causes and consequences of hunger. Emphasis is placed on factors of accessibility to food; regional and cross-cultural aspects of food consumption patterns, production parameters, food distribution patterns; local, regional and global food marketing, and the use of food as a weapon.

**GEO 399      Selected Topics**

A topic not covered by an existing course is offered as recommended by the department and approved by the Dean.

Prerequisite: Permission of the department chairperson

1-6 credits

**GEO 401      Cartography**

A basic course in map making. Covers projections, thematic, relief, and statistical cartography.

Prerequisites: GEO 150, GEO 160

**GEO 402      Quantitative Methods in Geography**

Introductory quantitative methods for geographers. Statistical analysis of spatial distributions and statistical relationships between geographic phenomena are emphasized.

Prerequisites: MATH 111

**GEO 403      Advanced Geographic Information Systems**

This course introduces students to advanced techniques in Geographic Information Systems, Aerial Photo Interpretation, Remote Sensing, and Map Design. Topics to be covered include data acquisition using remote sensing systems, aerial photo interpretation and measurement, components and functionality of GIS, concepts and structure of spatial data, database planning and design, automating spatial data, cartographic theory and application to thematic mapping, attribute data management, Spatial manipulation, and geographical analysis using GIS. During the semester, students will learn the applications of GIS and geo-techniques in various fields including geography, environmental studies, health, business, and criminal justice

Prerequisite: GEO 203

**GEO 406      Climatology**

An examination of atmospheric processes and resulting patterns of world regional climates. Study of energy flux, atmospheric circulation, and atmospheric moisture to explain climate variation on the Earth's surface. Previous physical geography course preparation is recommended but not required.

Prerequisite: GEO 160

**GEO 412      Medical Geography**

Application of perspectives and methodologies of geography to the study of health systems, disease incidence, prevalence, and diffusion, and health care distribution. The course focuses on factors of health and wellbeing, traditional and biomedicine and health systems, disease ecology, disease epidemiology, accessibility to factors of good and adequate health; planning of health care delivery systems. Case studies include vector carried diseases, and technologically created health hazards.

Prerequisite: GEO 150

**GEO 465      Biogeography**

Spatial relationships of the living environment. A systems approach to functional processes, characteristics, and relationships of the ecological elements to water and vegetation. Includes both natural succession and man-induced changes, including pollution within the ecosystem.

Prerequisites: GEO 160, ENV 115, BIO 344 or permission of instructor

**GEO 480      Senior Seminar**

Cover major topics in social research design and methodology and reviews historical development of Geography as a discipline and a science. Geographic concepts and methods of analysis are applied to the study of a contemporary problem in our physical and human environments.

Prerequisite: Senior status

**GEO 499      Independent Study**

As approved and to be arranged.

1-6 credits

Prerequisite: Approval of department chairperson