


GEOGRAPHY (GEO)

 - General Education Course

GEO 100  Intro to Human Geography (CT) 3 Credit hours

This critical thinking course provides a systematic examination of contemporary concepts and processes of human geography in global perspective, including economics, geopolitics, culture, nationalism, urbanization, governance, agriculture, population, and migration.

Attributes: Critical Thinking, International, Core II Social Sciences
Grade Mode: Normal Grading Mode

GEO 101  Physical Geography (CT) 4 Credit hours

Systematic survey of earth-sun relationships, land-surface form, climate, soils, water, natural vegetation, and other natural content as a background for human geography.

Attributes: Critical Thinking, Natural Sciences
Grade Mode: Normal Grading Mode

GEO 110 Basic GIS 1 Credit hour

Introduction to GIS concepts including GIS components, spatial and tabular data, database elements, data formats, and map design; hands-on experience with a GIS.

Attributes: Digital Humanities
Grade Mode: Normal Grading Mode

GEO 111 Air Photos & Satellite Imagery 1 Credit hour

Introduction to photogrammetry and remote sensing through the hands-on investigation of aerial photographs and satellite imagery using the latest technology.

Attributes: Digital Humanities
Grade Mode: Normal Grading Mode

GEO 112 Smartphone GPS 1 Credit hour

Principles of Global Navigation Satellite Systems (GNSS); using your smartphone for Global Positioning Systems (GPS)/GNSS orientation, and data collection.

Attributes: Digital Humanities
Grade Mode: Normal Grading Mode

GEO 113 Web GIS 1 Credit hour

Students learn to build web maps, share GIS data on the internet, and create web GIS applications.

Attributes: Digital Humanities
Grade Mode: Normal Grading Mode

GEO 203  Economic Geography (CT) 3 Credit hours

A systematic examination of world economic geography with a focus on population, agriculture, transportation, land use, urbanization, industry, energy, and the environment.

Attributes: Critical Thinking, International, Core II Social Sciences
Grade Mode: Normal Grading Mode

GEO 206  Geography West Virginia 3 Credit hours

A survey of the geography of West Virginia including landforms, climate, settlement patterns, population, economics, resources, politics, and environmental changes.

Attributes: American Institutions, Core II Social Sciences
Grade Mode: Normal Grading Mode

GEO 207  Biblical Geography 3 Credit hours

Students explore the physical and human geography of ancient Palestine and assess how geography informs our understanding of people, events, and places described by Jewish and Christian scriptures.

Attributes: Core II Humanities
Grade Mode: Normal Grading Mode

GEO 222  Global Environment Issues (CT) 3 Credit hours

Environmental issues have great emotional, political, and economic significance. The dynamics of global environmental problems, their complex interactions, and effects on potential stakeholders will be examined at the international scale.

Attributes: Critical Thinking, International, Core II Social Sciences
Grade Mode: Normal Grading Mode

GEO 223 Digital Earth 4 Credit hours

Students employ GIS, GPS, Remote Sensing, and Drones for spatial data collection and analysis and investigate how the tools function for studying human and physical Earth systems.

Grade Mode: Normal Grading Mode

GEO 230  Intro to Meteorology (CT) 4 Credit hours

Introduction to the composition of the atmosphere and weather phenomena, including thunderstorms, tornadoes, and hurricanes.

Attributes: Critical Thinking, Core II Natural Sciences
Grade Mode: Normal Grading Mode

GEO 280 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

GEO 281 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

GEO 282 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

GEO 283 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

GEO 300 Methods in Geography 3 Credit hours

Provides an introduction to research methods in geography. Topics addressed include: data sources; sampling; data collection, storage, and management; descriptive measures and data visualization techniques; qualitative and quantitative analysis.

Pre-req: STA 225 with a minimum grade of D or STA 150 with a minimum grade of D or STA 150B with a minimum grade of D or MGT 218 with a minimum grade of D or PSY 223 with a minimum grade of D or SOC 345 with a minimum grade of D or GEO 440 with a minimum grade of D.

Grade Mode: Normal Grading Mode

GEO 305  Geog of USA & Canada 3 Credit hours

Survey of physical, historical, population, economic, political, cultural, and regional geographies of Canada and the United States, including an analysis of the multi-cultural nature of the societies.

Attributes: American Institutions, Multicultural
Grade Mode: Normal Grading Mode

GEO 317  World Regional Geography 3 Credit hours

World regions examined using a synthesis of physical and human geographical themes including environment, culture, landscape, climate, landforms, globalization, population patterns, urbanization, economies, and political geography.

Attributes: International
Grade Mode: Normal Grading Mode

- GEO 350 Severe Storms and Natl Hzrds** **4 Credit hours**
 Basics of earth and atmospheric hazards including flooding, earthquakes, tsunamis, hurricanes, tornadoes, and volcanic eruptions, and how to mitigate the impacts.
Grade Mode: Normal Grading Mode
- GEO 355 Aviation Weather** **3 Credit hours**
 A study of atmospheric conditions on aeronautical operations. Topics include atmospheric properties, aviation hazards including thunderstorms, wind shear, turbulence, and icing, and weather flight resources.
Pre-req: GEO 230 with a minimum grade of D.
Grade Mode: Normal Grading Mode
- GEO 402 Geography of Appalachia** **3 Credit hours**
 A study of the geography of Appalachia, including landforms, climate, settlement patterns, population, economics, resources, politics, and environmental changes.
Attributes: American Institutions
Grade Mode: Normal Grading Mode
- GEO 404 🌍 Geography of Europe** **3 Credit hours**
 An examination of the geography of Europe focusing on contemporary issues, including climate, culture, economics, environmental change, everyday life, international relations landforms, language, politics, population, religion, and urbanization.
Attributes: International
Grade Mode: Normal Grading Mode
- GEO 405 🌍 Political Geography** **3 Credit hours**
 A systematic and regional survey of world political problems and international relations stressing current geopolitical conflicts.
Attributes: International
Grade Mode: Normal Grading Mode
- GEO 406 🌍 Population Geography** **3 Credit hours**
 An examination of contemporary patterns, processes, and problems of population geography in global perspective, including fertility, mortality, demographic change, migration, malnutrition, urbanization, natural resource sustainability, and future projections.
Attributes: International
Grade Mode: Normal Grading Mode
- GEO 408 🌍 Geog of South & Middle America** **3 Credit hours**
 A study of settlement, transportation, manufacturing, agriculture, geopolitics, and natural resources of South and Middle American countries.
Attributes: International
Grade Mode: Normal Grading Mode
- GEO 410 Urban Geography** **3 Credit hours**
 Study of the evolution, morphology and land use, functions, and problems of urban areas, with emphasis on governance, planning, and the social and environmental impacts of urbanization.
Attributes: American Institutions
Grade Mode: Normal Grading Mode
- GEO 411 Medical Geography** **3 Credit hours**
 An examination of contemporary issues and problems in health and medical geography, including the spatial aspects of global health, health care policy, and disease origins, diffusion, and ecology.
Grade Mode: Normal Grading Mode
- GEO 418 Geography For Educators** **3 Credit hours**
 A study of geographic concepts, methods, and technologies essential for effective teaching of geographic content for K-12 social studies teachers and college educators.
Grade Mode: Normal Grading Mode
- GEO 422 🌍 Environmental Geography** **3 Credit hours**
Attributes: International
Grade Mode: Normal Grading Mode
- GEO 423 Cartography & GIS** **3 Credit hours**
 This course is an introduction to cartography and is the cornerstone of Geographic Information Science. In this class you will learn basic map design, map interpretation and appreciation. We will explore the nature of spatial data, and learn what maps can and cannot represent. We will study maps as a data source for Geographic Information Systems, and as a graphic tool for scientific visualizations.
Grade Mode: Normal Grading Mode
- GEO 424 Transportation Geography** **3 Credit hours**
 A geographic analysis of transportation and its spatial organization. Concepts, models, and analytical methods related to traffic demand, network configuration, and allocation of transport facilities are covered.
Grade Mode: Normal Grading Mode
- GEO 425 Climatology** **4 Credit hours**
 A study of elements of weather and climate, methods of climatic classification, and the distribution and characteristics of world climate regions.
Grade Mode: Normal Grading Mode
- GEO 426 Principles of GIS** **4 Credit hours**
 Introduction to Geographic Information Systems (GIS) principles, techniques, and applications for the social and natural sciences with emphasis on foundational geographic principles in a lecture/lab format.
Attributes: Digital Humanities
Grade Mode: Normal Grading Mode
- GEO 427 Programming GIS** **4 Credit hours**
 Students automate GIS analyses and workflows by building repeatable models, programming with Python, and using other concepts and techniques within both desktop and web GIS applications.
Pre-req: GEO 423 with a minimum grade of D or GEO 426 with a minimum grade of D or GEO 429 with a minimum grade of D or GEO 430 with a minimum grade of D or NRRM 423 with a minimum grade of D or NRRM 433 with a minimum grade of D.
Grade Mode: Normal Grading Mode
- GEO 429 Location Analysis and GIS** **4 Credit hours**
 Concepts, models, and methods of geographic location analysis of natural resource extraction, manufacturing, services, retail and market area analytics, and logistics using GIS.
Grade Mode: Normal Grading Mode
- GEO 430 Environmental Raster GIS** **4 Credit hours**
 Environmental Applications of GIS raster analysis, including local, neighborhood, and zonal operations, terrain analysis, distance modeling, and surface interpolation, data collection and input, and advanced spatial analysis using GIS.
Pre-req: GEO 426 or GEO 429 or IST 423.
Grade Mode: Normal Grading Mode

