GEO: GEOGRAPHY AND PLANNING

Courses

GEO 502. Topical Seminar in Geography. 3 Credits.
Special topics in geography or planning not offered under existing, regularly offered courses. Repeatable for credit.

GEO 503. Seminar in Modern Geography. 3 Credits.
This course is intended to provide an introduction to the study of geography at the graduate level, with a focus on understanding various approaches to the discipline through the lens of a common theme: inequality and social justice. Over the course of the semester, students will also develop their own research ideas through completion of a comprehensive annotated bibliography and literature review on a topic of their choosing.
Distance education offering may be available.

GEO 505. Planning Design. 3 Credits.
Methods and techniques of planning design. Presentation of statistical data in map form.

GEO 506. Seminar in Physical Geography. 3 Credits.
This course examines aspects of the physical environment that must be considered when planning any site for urban, industrial, or suburban activity.

GEO 507. Internet Applications of Geographic Information Systems. 3 Credits.
The course examines the principles and applications of web-based and mobile geographic information systems (GIS). Internet map services, navigation/GPS systems and cell -phone based applications are examined through the use of ArcGIS Internet map Server, Google Earth, Google APIs and cell phone applications.
Distance education offering may be available.

GEO 509. Quantitative Methods in Planning/Geography. 3 Credits.
Fundamental statistics, methods, and techniques applied to geographic research and decision making, such as urban and regional planning.

GEO 521. Suburbanization and Land Development. 3 Credits.
Component systems and functional operations of urban/suburban communities, including ecological and demographic aspects. Emphasis on organization, development, change, and problems of communities.

GEO 524. Population Processes. 3 Credits.
Characteristics and distribution of world populations are studied. The dynamic processes of population change (mortality, fertility, and migration) are examined.

GEO 525. Urban and Regional Planning. 3 Credits.
Application of community-planning theories and methods to designated urban and regional systems.

GEO 526. Metropolitan Systems and Problems. 3 Credits.
Urbanization processes and problems; urban systems in the expanding metropolitan and regional setting; present and proposed efforts to solve urban problems.

GEO 531. Transportation Planning. 3 Credits.
Transportation issues that face today's planners are studied and various means of analysis demonstrated. Computer assignments use EMME/2 package.

GEO 534. Geographic Information Systems. 3 Credits.
The common principles and concepts of Geographic Information Systems; examination of the theory and tools of spatial data analysis through specific applications.
Distance education offering may be available.

GEO 538. Environmental Modeling with Geographic Information Systems. 3 Credits.
This course reviews the principles of geodatabase development and use in geographic information systems (GIS). It is a study of how GIS software is used to enhance decision-making process through advanced database operation. The course includes an in-depth exploration of database design and management techniques. The process of creating information models of real world processes is examined through the development of a geodatabase. These data will then be spatially examined and manipulated to review the process of database development and decision-making.
Distance education offering may be available.

GEO 544. Geography of Latin America. 3 Credits.
Regional geography of Latin America: its physical base, settlement, agriculture, demography, and manufacturing.

GEO 554. Geography and Planning of Housing. 3 Credits.
This course provides an overview of the spatial, economic, social, physical and political forces that structure and affect current housing conditions and prospects. This course introduces key concepts and institutions that influence the production, distribution, maintenance and location of housing. The Philadelphia metropolitan area is emphasized as a case study for understanding the implications of present housing geography trends for the future, as well as the development of rational housing policies and plans.

GEO 556. Introduction to Business GIS. 3 Credits.
This course makes use of large datasets and GIS in analystical studies and strategic decision-making in the commerical sector, involvoing store location, geodemographics and marketing information.
Distance education offering may be available.

GEO 572. Seminar in Resource Management. 3 Credits.
Applied research problem solving for resource management and environmental issues designed for an individual student or team-study basis.
Repeatable for credit.

GEO 577. Geodatabases. 3 Credits.
This course reviews the principles of geodatabase development and use in GIS. It is also a study of how GIS software is used to enhance the decision making process through advanced database operations. Using ESRI's ArcGIS software, students will add demographic, environmental, political, economic, and other types of data to GIS applications. These data will then be spatially examined and manipulated to review the process of database development and decision making.
Distance education offering may be available.

GEO 584. Applications of Geographic Information Systems. 3 Credits.
This course builds on GEO 534, expands upon important technical concepts in greater detail, and explores a range of GIS application areas.
GEO 584 Prerequisite: Successful completion of GEO 534 with minimum grade of C-.
Distance education offering may be available.

GEO 585. Geography Field Methods. 3 Credits.
An advanced field course that includes urban and land-use studies. Use of field methods, mapping, and data collection for geographical reports.
Distance education offering may be available.

GEO 600. Independent Research in Geography. 3 Credits.
Research projects, reports, and readings in geography.
Repeatable for credit.

GEO 610. Thesis in Geography. 3-6 Credits.
A thesis is developed on a research problem for which the student formulates a theory, proposition or hypothesis, and investigates available information on the subject.
Repeatable for credit.

GEO 615. Internship in Urban and Regional Planning. 3-6 Credits.
On-the-job experience in the application of theory, execution of substantive research, and provision of service with professional agencies at selected off-campus locations.
Repeatable for credit.