

# DEPARTMENT OF GEOGRAPHY AND PLANNING

## *College of Business and Public Management*

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Department of Geography and Planning (<http://www.wcupa.edu/geographyPlanning/>)

Gary Coutu ([gcoutu@wcupa.edu](mailto:gcoutu@wcupa.edu)), *Chairperson*

The Department of Geography & Planning prepares students for careers in a range of fields including urban and regional planning, geospatial technologies, environmental conservation, and more. Students in the program are equipped with the professional and technical skills needed to guide complex processes of a changing world, to utilize cutting edge technologies to create sustainable built and natural environments, and to enrich communities through leadership, entrepreneurial activity, social responsibility, and environmentally sustainable planning and policy. According to the U.S. Department of Labor, the Geospatial Technology industry is growing at an annual rate of 35% as private, government, and non-profit sectors incorporate GIS as part of their information systems.

The **B.S. in Urban and Environmental Planning** prepares students to enter the workforce as professional planners, GIS analysts, or in related professions. Professional planners play a major role in shaping communities; in providing guidance for sustainable development; and in addressing social, environmental, political, and economic problems of communities. GIS Analysts work in a range of industries including private business, local and regional planning agencies, the federal government, and non-profit organizations.

The **B.S. in Geography** offers five separate track options, all of which share a common core of courses in geography, including maps and remote sensing, basic GIS, spatial statistics, and the completion of an individual research project. The General Geography Track offers the most flexibility and provides an overview of the three areas of planning, GIS, and environmental conservation. The Environmental Track provides a more focused study of environmental analysis and conservation practices. The GIScience Track provides more advanced applications of geospatial technologies. The Location Analytics Track focuses on Business Geographics and the application of GIS tools to location analytics. The Elective Social Studies Teacher Certification Track provides an opportunity for a student to complete social studies post-baccalaureate teaching certification.

Both programs also prepare students for graduate study in planning, GIS, environmental science, and law.

## Department Mission Statement

The mission of the Department of Geography and Planning is multifaceted. The mission is to produce geographers and planners conceptually prepared and technically skilled for spatial analysis and problem solving; to provide majors with the basic background of the discipline; to provide the opportunity to specialize in an area of their interest such as geographic information systems (GIS) and planning; to link undergraduate programs to the surrounding community for professional and graduate-level training; and to serve as a resource for community planning, consulting, and research needs.

In keeping with this mission, the department has the following learning goals for the undergraduate program:

1. Basic background knowledge in the discipline of geography and planning

2. Conceptual and technical skills for spatial analysis and problem solving
3. The ability to conduct geographic research

## Programs

### Majors

- B.S. in Geography (<http://catalog.wcupa.edu/undergraduate/business-public-management/geography-planning/geography-bs/>)
  - Accelerated B.S. in Geography to M.S. in Geography (<http://catalog.wcupa.edu/undergraduate/business-public-management/geography-planning/geography-bs/>)
- B.S. in Urban and Environmental Planning (<http://catalog.wcupa.edu/undergraduate/business-public-management/geography-planning/urban-environmental-planning-bs/>)
  - Accelerated B.S. in Urban and Environmental Planning to M.S. in Geography (<http://catalog.wcupa.edu/undergraduate/business-public-management/geography-planning/urban-environmental-planning-bs/>)
  - Accelerated B.S. in Urban and Environmental Planning to Master of Urban and Regional Planning (<http://catalog.wcupa.edu/undergraduate/business-public-management/geography-planning/urban-environmental-planning-bs/>)

### Minors

- Applied Community and Environmental Sustainability (ACES) (<http://catalog.wcupa.edu/undergraduate/business-public-management/geography-planning/applied-community-environmental-sustainability-minor/>)
- Business Geographic Information Systems (<http://catalog.wcupa.edu/undergraduate/business-public-management/geography-planning/business-geographics-information-systems-minor/>)
- Geographic Information Systems (<http://catalog.wcupa.edu/undergraduate/business-public-management/geography-planning/geographic-information-systems-minor/>)
- Geography and Planning (<http://catalog.wcupa.edu/undergraduate/business-public-management/geography-planning/geography-minor/>)

### Certificate

- Real Estate (<http://catalog.wcupa.edu/undergraduate/business-public-management/geography-planning/real-estate-cert/>)

### Certification

- For information about Elective Social Studies Teacher Certification, see the Department of Secondary Education and K12 Health and Physical Education (<http://catalog.wcupa.edu/undergraduate/education-social-work/secondary-education/#programtext>).

## Graduate Opportunities

See the graduate catalog for more information on the Geography and Planning programs. (<http://catalog.wcupa.edu/graduate/business-public-management/geography-planning/>)

## Policies

- See undergraduate admissions information. (<http://catalog.wcupa.edu/general-information/admissions-enrollment/undergraduate-admissions/>)
- See academic policies. (<http://catalog.wcupa.edu/undergraduate/academic-policies-procedures/>)

All undergraduate students are held to the academic policies and procedures outlined in the undergraduate catalog. Students are encouraged to review departmental handbooks for program tips, suggested course sequences, and explanations of procedures. When

applicable, additional policies for specific department programs may be listed below.

## Accelerated Program Policy

Refer to the Accelerated Programs page (<http://catalog.wcupa.edu/undergraduate/accelerated-programs/>) for more information.

## Faculty

### Professors

Gary Coutu ([gcoutu@wcupa.edu](mailto:gcoutu@wcupa.edu)) (2005)  
Chairperson, Geography and Planning  
Graduate Coordinator, Geography and Planning  
B.A., Duquesne University; M.S.P.M.P., Carnegie Mellon University;  
Ph.D., Texas A&M University

Martin Katirai ([mkatirai@wcupa.edu](mailto:mkatirai@wcupa.edu)) (2009)  
Graduate Coordinator, Geography and Planning  
B.A., York University, Toronto; M.P.H., University of Kentucky College of Public Health; Ph.D., University of Louisville

Joan M. Welch ([jwelch@wcupa.edu](mailto:jwelch@wcupa.edu)) (1990)  
B.A., St. Cloud State University; M.A., Ph.D., Boston University

### Associate Professors

Megan L. Heckert ([mheckert@wcupa.edu](mailto:mheckert@wcupa.edu)) (2014)  
B.S., Brown University; M.A., Ph.D., Temple University

Amy J Lynch ([alynch@wcupa.edu](mailto:alynch@wcupa.edu)) (2022)  
B.S., North Carolina State; M.E.M., Duke University; Ph.D., University of Pennsylvania

### Assistant Professors

Jongwoong Kim ([jkim@wcupa.edu](mailto:jkim@wcupa.edu)) (2019)  
B.A., University of North Carolina; M.S., University of Michigan;  
Ph.D., University of Cincinnati

Yingying Lyu ([ylyu@wcupa.edu](mailto:ylyu@wcupa.edu)) (2022)  
B.E., North China University; M.E., Tsinghua University; M.S., Ph.D., Harvard University

## Courses

### GEO

#### GEO 101. World Geography. 3 Credits.

The scope of geography and understanding of the world's regions generated by it. Human society is examined in a frame of spatial, environmental, and resource factors. Map skills and other 'tools' of geography are introduced.

Gen Ed Attribute: Behavioral and Social Science Distributive.

Distance education offering may be available.

Typically offered in Fall, Spring & Summer.

#### GEO 102. Physical Geography. 3 Credits.

The study of basic principles of physical geography and of relationships between components of the total earth environment.

Typically offered in Fall.

#### GEO 103. Human Geography. 3 Credits.

An inquiry into the theoretical and applied approaches to the study of human spatial behavior and the distribution of social problems.

Gen Ed Attribute: Behavioral and Social Science Distributive.

Distance education offering may be available.

Typically offered in Spring & Summer.

#### GEO 104. Introduction to Geospatial Technology and Analytics. 3 Credits.

This course develops critical thinking skills through the exploration of the fundamental components of data analytics in terms of spatial data and geospatial technologies. This includes the basic concepts and skills related to the 3 core areas of analytics, 1) data, 2) analysis, and 3) visualization. Data structures and skills are examined within the context of Geographic Information Systems (GIS). Spreadsheets, database tools, GIS software, and geospatial technology are used to capture, manage, and store spatial data. Analysis tools, such as spreadsheet functions, scripts, and GIS software are used to investigate data sets related to discipline-specific projects. Geovisualization of results are communicated using map applications, dash boards, and story maps.

Gen Ed Attribute: Science Distributive Requirement.

Distance education offering may be available.

Typically offered in Fall, Spring, Summer, Winter.

#### GEO 199. Transfer Credits. 1-10 Credits.

Transfer Credits.

Repeatable for Credit.

#### GEO 200. Global Cities. 3 Credits.

This course introduces students to historical and current spatial patterns within global cities.

This class will discuss the major concepts of urban development and growth, globalization, and city systems using lectures, class discussion, and videos. The goal of the course is to provide the students with an understanding of the basic principles of geography and apply those principles to the study of cities across the globe. The course emphasizes the environmental and human characteristics that make cities distinctive collectively and individually.

Gen Ed Attribute: Behavioral and Social Science Distributive.

Distance education offering may be available.

Typically offered in Spring & Summer.

#### GEO 204. Introduction to Urban Studies. 3 Credits.

An examination of the breadth of urban studies from the perspectives of many social science disciplines. Philadelphia is emphasized as an object of perception, as a place of life and livelihood, and as an example of continual change in the urban environment.

Gen Ed Attribute: Diversity Requirement, Interdisciplinary Requirement.

Distance education offering may be available.

Typically offered in Fall & Spring.

#### GEO 205. Geography of Agriculture, Food & Sustainability. 3 Credits.

Human beings eat food daily and this necessity has led to conversion of half of the Earth's land surface to agricultural use. This course introduces students to the spatial patterns of agricultural systems on the planet, the physical geography related to them. Students will investigate the impacts of modern agriculture on the environment, and human culture and health. This will be followed by an introduction to sustainable alternatives including local small scale organic agriculture, urban gardening, and resilient diverse food cropping systems. Students will choose a region of the world to study sustainable agricultural systems and prepare a regional food dish to share with the class.

Gen Ed Attribute: Behavioral and Social Science Distributive.

Typically offered in Fall.

#### GEO 213. GIS for Social Justice. 3 Credits.

In this course, students will apply an ethical lens to explore maps, Geographic Information Systems (GIS), and other location-enabled technologies, with an eye towards (1) understanding the ways that they have been used (and abused) to promote inequality and (2) examining recent efforts to use GIS to combat this past and promote social justice. This course will combine readings and discussion with GIS lab activities that engage students in map-making to promote social change. Students will ultimately focus on the questions "What does justice look like?" and "How can GIS help us get there?" This is an introductory course with hands-on technology experience.

Gen Ed Attribute: Ethics Requirement.

Typically offered in Spring.

#### GEO 215. GIS for Criminal Justice Careers. 3 Credits.

A course in crime mapping and the analysis of maps of crime patterns, police services, locations of criminal incidents, offenders' geographical behaviors, and spatial trends in crime. Typically offered in Fall & Spring.

Cross listed courses GEO 215, CRJ 215.

**GEO 225. Introduction to Maps and Remote Sensing. 3 Credits.**

Introduction to mapping and remote sensing. Thorough exposure to grid coordinate systems, representative fractions/scale, map projections, and mapping systems. Also, aerial photographs, digital orthophotos, satellite images, and computers as tools. Typically offered in Fall.

**GEO 230. Environmental Conservation and Sustainability. 3 Credits.**

An inquiry into the problems of resources protection, management and sustainability. Emphasis is placed on the United States. Gen Ed Attribute: Behavioral and Social Science Distributive. Distance education offering may be available. Typically offered in Fall, Spring & Summer.

**GEO 301. Geography of United States and Canada. 3 Credits.**

An examination of the complexity and diversity of the physical and human landscapes of the U.S. and Canada. Both rural and urban geography are studied with an emphasis on recent geographic changes of influence: such as the shift from an emphasis on production to one on service and consumption, the growing importance of cities, and increasing racial and ethnic diversity. Typically offered in Fall.

**GEO 302. Geography of Latin America. 3 Credits.**

Central and South America are studied with emphasis on geographic understanding of the major sources of change in recent times. The course focuses on selected individual countries in addition to presentation of the region as a whole. Gen Ed Attribute: Foreign Language Culture Cluster, Spanish Culture Cluster. Distance education offering may be available. Typically offered in Fall, Spring, Summer, Winter.

**GEO 303. Geography of Europe. 3 Credits.**

A survey course focusing on the regional geography of Europe. The course includes and examination of the physical environment, cultural traditions, lifestyles, economies, urban environment and political change throughout the region. Gen Ed Attribute: Foreign Language Culture Cluster, France & Francophone Area Culture Cluster, Germany Culture Cluster, Italy (Italian) Culture Cluster. Distance education offering may be available. Typically offered in Fall, Spring & Summer.

**GEO 304. Geography of Asia. 3 Credits.**

This course is a survey course focusing on the geography of Asia. This course utilizes a systematic approach to understanding Asia's geography and includes an examination of the physical environment, the cultural traditions, lifestyles, economies, development, and urban environment throughout the Asia region. The course focuses on the regions of South, Central, East, and Southeast Asia. Russia and the eastern countries of the former Soviet Union are also covered. Gen Ed Attribute: Foreign Language Culture Cluster, Russia & Eastern Europe Culture Cluster. Typically offered in Spring & Summer.

**GEO 310. Population Geography. 3 Credits.**

This course examines the processes of population change (fertility, mortality, health, and migration) and the changes in population distribution and composition from the international to the local scale. In addition to a substantive study of these topics, students are introduced to the use of primary data sources, such as the US Census for demographic description and policy recommendations. Gen Ed Attribute: Writing Emphasis. Typically offered in Spring.

**GEO 312. Urban Geography. 3 Credits.**

Analysis of patterns, processes, and consequences of urban growth and development. Theory of systems, size, spacing, and functions of cities. Students will conduct outside analysis using real data. Gen Ed Attribute: Diversity Requirement. Typically offered in Fall, Spring & Summer.

**GEO 316. Planning for Resilient Communities and Natural Disasters. 3 Credits.**

This course will focus on urban planning practices that help mitigate the impacts of various disasters to make resilient cities. It will provide students with the capacity to develop planning and public service skills to understand, diagnose and address causes, consequences, and mitigation and adaptation measures for a wide variety of emergencies and disasters. The course is both international and place-based in scope, with an emphasis on identifying best practices to help local communities survive the impact of major disasters. Geographic Information Systems will be used to understand the spatial patterns and to identify areas of high risk and vulnerability to natural disasters. Typically offered in Fall. Cross listed courses GEO 316, PLN 316.

**GEO 318. Economic Geography. 3 Credits.**

This course is concerned with the spatial patterns of economic activities, including production, consumption, and settlement. It provides an understanding of their location and the processes of change. The course is both international and place-based in scope, with an emphasis on economic concepts and the global economy, and the local impacts of global economic forces, as well as the role that the local public sector plays in generating economic development (jobs, employment, and tax base). Distance education offering may be available. Typically offered in Fall & Summer.

**GEO 324. Intro to Geographic Information Systems. 3 Credits.**

Data sources and analysis techniques used in the planning process, with emphasis on appropriate applications. Students receive considerable experience in using geographic information systems technology to solve real-world problems. Typically offered in Fall, Spring & Summer.

**GEO 325. Intro Business GIS. 3 Credits.**

This course provides a conceptual overview of geographical information systems as well as hands-on experience of software systems used in developing business management and marketing strategies. Attention is focused on using GIS technology as an analysis tool to improve decision making. Designed primarily for marketing majors. Typically offered in Fall, Spring & Summer.

**GEO 326. Quantitative Analysis in Geography and Planning. 3 Credits.**

Applications of basic statistical techniques to problems of spatial significance, emphasizing the adaptation of technique to problem, and the understanding and interpretation of specific analytical methods as applied to real-world situations. Pre / Co requisites: GEO 326 requires a prerequisite of MAT 103 or MAT 115 or MAT 113 or MAT 143 or MAT 121 or MAT 161 or MAT 131 or MAT 199. Typically offered in Spring. Cross listed courses GEO 326, PLN 326.

**GEO 328. Computer Cartography. 3 Credits.**

This course provides an overview of a variety of computer mapping programs and hands-on experience utilizing those programs. The course is structured to develop design skills related to the effective creation of maps. Graphic techniques are emphasized that relate to the effective display and communication of spatial phenomena. Typically offered in Spring.

**GEO 331. Transportation Planning. 3 Credits.**

Transportation planning is a key component of our communities and regions. This course addresses the various components of the transportation system of an urban area and the planning processes to provide transportation facilities as integral elements of the urban community. The primary geographical focus is the metropolitan area. The student will consider the various modes of the transportation system: automobile, rail, mass transit, air, water, bikeways and pedestrian components. Each mode is addressed in terms of systems elements: governance, financing, the planning process, environmental aspects and sustainability. The course is appropriate for the student new to community planning as well as the student who has focused interest in transportation planning and considerations it encompasses. The course serves as a base for career building in community planning; transportation planning; or serving as a base of knowledge for the informed citizen and user of the transportation system in a sustainable manner. Typically offered in Spring. Cross listed courses GEO 331, PLN 331.

**GEO 332. Environmental Crises. 3 Credits.**

The nature and dimensions of environmental problems with an emphasis on endangered life-support systems. Aspects of natural and social environment systems and their mutual interrelationships. Typically offered in Spring.



**GEO 333. Sustainable Cities. 3 Credits.**

This course will explore the economic, social, and environmental dimensions of sustainable development and how they have been applied to urban development in the quest to achieve the UN Sustainable Development Goal of making cities "inclusive, safe, resilient and sustainable."

Gen Ed Attribute: Speaking Emphasis.

Typically offered in Fall.

**GEO 334. Sustainable Living. 3 Credits.**

Practical solutions and innovative thinking in how students can adopt a more sustainable lifestyle personally and professionally. Three interconnected objectives of sustainability- economic vitality, environmental integrity, and social equity- will serve as core themes in the course.

Distance education offering may be available.

Typically offered in Summer.

**GEO 336. Environmental Planning. 3 Credits.**

Introduction to the concepts and tools of environmental planning, which include landscape form and function in planning. Applications to local and regional issues are stressed.

Typically offered in Spring.

Cross listed courses GEO 336, PLN 336.

**GEO 338. Environmental Application of Geographic Information Systems (GIS). 3 Credits.**

This course reviews the principles of cartography and GIS in terms of environmental applications. Using ESRI's and ArcGIS software, students will add environmental, political, economic, and other types of data to computerized maps to explore environmental analysis. These data will then be spatially examined and manipulated to review the process of mapmaking and decision-making.

Typically offered in Fall & Summer.

**GEO 341. Landscape Ecology. 3 Credits.**

The study of contemporary geographical patterns of plants and animals, and the overall processes which influence landscape development and characteristics, such as climatic and geomorphic events, and anthropogenic activities.

Typically offered in Spring.

**GEO 352. Geopolitics. 3 Credits.**

A study of the casual relations between geographical phenomena and political or military power.

Typically offered in Spring.

**GEO 354. Housing and Planning in America. 3 Credits.**

This course provides an overview of the physical, social, economic, and political forces that shape current housing conditions of the United States. The course introduces key concepts and institutions that influence the production, distribution, and maintenance of housing in the U.S. and other select countries. The Philadelphia metropolitan area is emphasized as a case study for understanding the implications of present and future housing plans, geography, and policies in the U.S.

Typically offered in Fall.

Cross listed courses PLN 354, GEO 354.

**GEO 400. Senior Seminar In Geography. 3 Credits.**

The study of historical and contemporary trends in geography; the design, preparation, and defense of a research proposal.

Gen Ed Attribute: Speaking Emphasis, Writing Emphasis.

Typically offered in Fall.

**GEO 401. Internet Mapping. 3 Credits.**

This course reviews principles and applications of cartography and geographic information systems (GIS) in terms of internet and mobile mapping technologies. Web-distributed maps, internet map services, navigation/Global Positioning Systems (GPS) and cell phone based applications are examined through the use of ArcGIS Internet map server, Google Earth, Google APIs and cell phone applications.

Pre / Co requisites: GEO 401 requires prerequisite of GEO 225.

Typically offered in Fall & Summer.

**GEO 402. Topical Seminar. 3 Credits.**

Intensive examination of a selected area of study in the field of geography. Topics will be announced at the time of offering. Course may be taken more than once when different topics are presented.

Typically offered in Fall & Spring.

Repeatable for Credit.

**GEO 403. Planning and Design. 3 Credits.**

Selected experiences designed to assist the student (either as an individual or as a member of a group) in developing proficiency in information-providing techniques.

Typically offered in Spring.

Cross listed courses PLN 403, GEO 403.

**GEO 404. Senior Project in Geography. 3 Credits.**

The execution of the research proposal (designed in GEO 400) as an acceptable departmental senior research paper.

Pre / Co requisites: GEO 404 requires a prerequisite of GEO 400.

Typically offered in Spring.

**GEO 410. Independent Study in Geography. 3 Credits.**

Research projects, reports, and readings in geography.

Consent: Permission of the Department required to add.

Typically offered in Summer.

Repeatable for Credit.

**GEO 412. GIS Applications in Health. 3 Credits.**

This is an applied course covering the theory and applications of geographic information systems (GIS) for public health. The course includes an overview of the principles of GIS in public health and practical experience in its use. The practical component involves the use of desktop GIS software packages including ArcGIS.

Pre / Co requisites: GEO 412 requires a prerequisite of GEO 324.

Typically offered in Fall.

**GEO 415. Internship in Geography and Planning. 1-12 Credits.**

Practical job experience in applying geographic theory, executing substantive research, and engaging in community service in selected off-campus situations. Open only to upper-division B.S. majors and minors in geography/planning with permission of department chairperson.

Typically offered in Fall, Spring & Summer.

Repeatable for Credit.

**GEO 424. Geographic Information Systems Application. 3 Credits.**

A course to advance the student's knowledge of the design and implementation of geographic information systems.

Pre / Co requisites: GEO 424 requires prerequisite of GEO 324.

Typically offered in Spring.

**GEO 425. Business GIS Applications. 3 Credits.**

Intensive use of Geographical Information Systems (GIS) in the business environment to aid in better sales and marketing decisions. Course provides a conceptual overview of database management systems from MIS to geodatabases and their integration with a GIS. Case studies draw numerous examples from various businesses. Student tutorials provide hands-on opportunities for students to experience and learn how to use GIS within a business problem-solving framework.

Pre / Co requisites: GEO 425 requires prerequisite of GEO 325.

Typically offered in Fall & Spring.

**GEO 427. Geodatabase System. 3 Credits.**

The course teaches students the concepts and design of geographic database systems in the process of geographic analysis.

Typically offered in Spring.

**PLN****PLN 201. Real Estate Fundamentals. 3 Credits.**

This course introduces students to foundational real estate concepts to support the practice of real estate in Pennsylvania. Student will learn about the language, principles, and laws that govern the business of real estate. Emphasis is on the underlying concepts of land and property, legal rights related to real estate, and the laws and procedures that govern the conveyance of these rights. This is one of the two courses required to sit for the Pennsylvania Real Estate Salesperson License Examination.

Typically offered in Fall & Spring.

**PLN 202. Real Estate Practice. 3 Credits.**

This course provides students with an overview of real estate practice in Pennsylvania, including the various facets of the real estate business and the techniques, procedures, and ethics involved in real estate transactions. The course will prepare real estate professionals to following proper procedures and behave ethically to protect the interests of consumers in the provision of services. This is one of the two courses required to sit for the Pennsylvania Real Estate Salesperson License Examination.

Typically offered in Fall & Spring.

**PLN 214. Introduction to Planning. 3 Credits.**

The methods of analyzing problems of urban and regional planning. Emphasis is placed on systems of housing, recreation, transportation, industry, and commerce.

Gen Ed Attribute: Behavioral and Social Science Distributive.

Distance education offering may be available.

Typically offered in Fall.

**PLN 301. Planning History, Theory, and Ethics. 3 Credits.**

Planning theory is crucial to understanding how planners make decisions. Making ethical decisions is a critical component in the everyday life of an urban planner. This course takes an in-depth look at various planning theories including comprehensive, incremental, mixed scanning, advocacy, equity, and radical approaches to planning while adhering to the American Institute of Certified Planners (AICP) code of ethics and conduct. Students examine the history and evolution of planning; planning within a democracy; how planning influences society; new directions within the field, including sustainability; and finally the relationship between planning theory, practice, and ethical decision making. As a result, it will enable students to critically understand the purpose and contribution of planning within society as well as the role of the planner, including the issues of planning ethics, professional standards and conduct, and principles of the AICP Code of Ethics.

Gen Ed Attribute: Ethics Requirement, Writing Emphasis.

Typically offered in Spring.

**PLN 302. Community Engagement Techniques. 3 Credits.**

This course focuses on qualitative methods and citizen engagement techniques for planning practice. Discussion centers on citizen participation, social justice, governance and working with under-represented populations. The course includes how to conduct a community survey, structure a public meeting, conduct a focus group, and other methods planners use to bring meaningful citizen participation into community decision-making.

Typically offered in Spring.

**PLN 316. Planning for Resilient Communities and Natural Disasters. 3 Credits.**

This course will focus on urban planning practices that help mitigate the impacts of various disasters to make resilient cities. It will provide students with the capacity to develop planning and public service skills to understand, diagnose and address causes, consequences, and mitigation and adaptation measures for a wide variety of emergencies and disasters. The course is both international and place-based in scope, with an emphasis on identifying best practices to help local communities survive the impact of major disasters.

Typically offered in Spring.

Cross listed courses GEO 316, PLN 316.

**PLN 318. Economic Development Planning. 3 Credits.**

This course is concerned with the spatial patterns of economic activities, including production, consumption, and settlement. It provides an understanding of their location and the processes of change. The course is both international and place-based in scope, with an emphasis on economic concepts and the global economy, and the local impacts of global economic forces, as well as the role that the local public sector plays in generating economic development (jobs, employment, and tax base). The class is geared both to students interested in exploring the role of the public sector in facilitating private sector investment and those interested in preparing themselves for a career position in planning, economic development, real estate, or public policy in general.

Distance education offering may be available.

Typically offered in Fall & Summer.

**PLN 320. Land Use Planning. 3 Credits.**

An inquiry into the development of comprehensive land use studies by governmental and private agencies, emphasizing the development of skills in problem identification and resolution.

Pre / Co requisites: PLN 320 requires a prerequisite of PLN 214.

Typically offered in Fall.

**PLN 322. Land Development Controls. 3 Credits.**

An insight into the "why" and "how" of land development, emphasizing the role of local government in zoning, subdivision regulation, and other land regulations.

Pre / Co requisites: PLN 322 requires a prerequisite of PLN 214.

Gen Ed Attribute: Speaking Emphasis.

Typically offered in Spring.

**PLN 326. Quantitative Analysis in Geography and Planning. 3 Credits.**

Applications of basic statistical techniques to problems of spatial significance, emphasizing the adaptation of technique to problem, and the understanding and interpretation of specific analytical methods as applied to real-world situations.

Pre / Co requisites: PLN 326 requires a prerequisite of MAT 103 or MAT 115 or MAT 113 or MAT 143 or MAT 121 or MAT 161 or MAT 131 or MAT 199.

Typically offered in Spring.

Cross listed courses GEO 326, PLN 326.

**PLN 331. Transportation Planning. 3 Credits.**

Transportation planning is a key component of our communities and regions. This course addresses the various components of the transportation system of an urban area and the planning processes to provide transportation facilities as integral elements of the urban community. The primary geographical focus is the metropolitan area. The student will consider the various modes of the transportation system: automobile, rail, mass transit, air, water, bikeways and pedestrian components. Each mode is addressed in terms of systems elements: governance, financing, the planning process, environmental aspects and sustainability. The course is appropriate for the student new to community planning as well as the student who has focused interested in transportation planning and considerations it encompasses. The course serves as a base of career building in community planning; transportation planning; or serving as a base of knowledge for the informed citizen and user of the transportation system in a sustainable manner.

Typically offered in Spring.

Cross listed courses GEO 331, PLN 331.

**PLN 336. Environmental Planning. 3 Credits.**

Introduction to the concepts and tools of environmental planning, which include landscape form and function in planning. Applications to local and regional issues are stressed.

Typically offered in Spring.

Cross listed courses GEO 336, PLN 336.

**PLN 354. Housing and Planning in America. 3 Credits.**

This course provides an overview of the physical, social, economic, and political forces that shape current housing conditions of the United States. The course introduces key concepts and institutions that influence the production, distribution, and maintenance of housing in the U.S. and other select countries. The Philadelphia metropolitan area is emphasized as a case study for understanding the implications of present and future housing plans, geography, and policies in the U.S.

Typically offered in Fall.

Cross listed courses PLN 354, GEO 354.

**PLN 403. Planning Design (Studio A). 3 Credits.**

Selected experiences designed to assist the student (either as an individual or as a member of a group) in developing proficiency in information-providing techniques.

Pre / Co requisites: PLN 403 requires a prerequisite of PLN 214.

Typically offered in Fall.

Cross listed courses PLN 403, GEO 403.

**PLN 405. Planning Design (Studio B). 3 Credits.**

Selected experiences designed to assist the student (either as an individual or as a member of a group) in developing proficiency in site planning and urban design techniques.

Pre / Co requisites: PLN 405 requires a prerequisite of PLN 214.

Typically offered in Spring.