

DEPARTMENT OF CITY AND REGIONAL PLANNING

Introduction

City and regional planning is an interdisciplinary field that seeks to improve the quality of life for people in human settlements. Planners are involved, for example, in forecasting alternative futures of a city or region, guiding the type and location of new development, analyzing transportation systems, encouraging economic development, protecting the environment, mediating diverse interests, and revitalizing urban neighborhoods. They are involved in designing solutions to pressing societal problems such as urban sprawl, unemployment, homelessness, environmental pollution, and urban decay.

City and regional planners work for a variety of public, nonprofit, and private organizations. In the public sector local, state, and federal governments all employ city and regional planners. In the nonprofit sector, planners work for national, state, and local advocacy groups promoting sustainable development. In the private sector, planners work for development companies and consulting firms.

For undergraduates the Department of City and Regional Planning offers basic coursework, opportunities for supervised practical experience, and an academic minor. Undergraduate students take courses in the department for several reasons: to learn about cities and planning processes, to enrich or expand their current area of interest in different aspects of urbanization, or to explore the possibility of graduate work leading to a career in planning. Planning courses allow students to see how the arts and sciences can be applied to improve the prosperity and livability of cities, towns, and regions. In this way they help students deepen their appreciation of their major field of study. Some planning courses may fulfill General Education requirements.

Advising

The department's director of undergraduate studies serves as the primary point of contact for students participating in the minor. (See contact tab above.) Student advising and approval of equivalent courses are handled by the director. Students also have a primary academic advisor assigned in ConnectCarolina.

Facilities

The Department of City and Regional Planning is located in New East Building on Cameron Avenue. An important resource available to the department is the Center for Urban and Regional Studies, located in Hickerson House, where the research and service programs of the department are housed. The department also has strong ties to the Institute for the Environment. Other research centers that are of interest are Center for Community Capital, Program on Chinese Cities, Carolina Transportation Program, and the UNC Hazards Center.

Graduate School and Career Opportunities

Undergraduates interested in a career in city and regional planning can pursue postgraduate work in planning at UNC–Chapel Hill. The Department of City and Regional Planning offers several degree programs at the graduate level. A two-year program preparing students for advanced positions in professional practice in city and regional planning leads to the degree of master in city and regional planning. A program leading to the degree of doctor of philosophy prepares for careers in

teaching and research. Dual graduate degree programs are offered in collaboration with related professional programs (law, business, public administration, public health, landscape architecture, and environmental sciences and engineering).

For more information please contact Student Services Manager Sarah Ward (sarahw1@unc.edu).

Minor

- Urban Studies and Planning Minor (<http://catalog.unc.edu/undergraduate/programs-study/urban-studies-planning-minor/>)

Graduate Programs

- M.C.R.P. in City and Regional Planning (<http://catalog.unc.edu/graduate/schools-departments/city-regional-planning/>)
- Ph.D. in City and Regional Planning (<http://catalog.unc.edu/graduate/schools-departments/city-regional-planning/>)

Professors

Todd BenDor, Nichola Lowe, Noreen McDonald, Roberto G. Quercia, William M. Rohe, Yan Song, Dale Whittington, Meenu Tewari, Nikhil Kaza.

Associate Professors

Andrew Whittemore, Danielle Spurlock.

Assistant Professors

Matthew Palm, Ashley Hernandez, Miyuki Hino, Noah Kittner, Allie Thomas.

Research Professors

Phillip Berke, David J. Brower, Emil Malizia, David H. Moreau.

Affiliated Faculty

Michele Berger (Women's and Gender Studies), Maryann Feldman (Public Policy), David J. Hartzell (Kenan–Flagler Business School), Adam Lovelady (School of Government), Judith W. Wegner (School of Law), Jesse White (School of Government).

Professors Emeriti

Richard N.L. Andrews, Raymond J. Burby, F. Stuart Chapin Jr., David R. Godschalk, Edward J. Kaiser.

Adjunct Faculty

Tabitha Combs, Charles Edwards, James Myrick Howard, Leta Huntsinger.

PLAN–City and Regional Planning Undergraduate-level Courses

PLAN 50. First-Year Seminar: This Land Is Your Land. 3 Credits.

An issue encountered in managing urban communities and environmental quality concerns rights to land ownership. Environmental regulations limit people's rights to use land as they see fit. This seminar explores processes whereby rights to land, water, and environmental resources of the United States have been acquired, reserved, distributed, and regulated.

Rules & Requirements

 IDEAs in Action Gen Ed: FY-SEMINAR.

Grading Status: Letter grade.

PLAN 51. First-Year Seminar: Envisioning Community. 3 Credits.

How is "community" understood as a concept used to describe towns, universities, and other forms of social interaction? This seminar introduces students to urban planning, higher education, and social capital and provides students with opportunities to explore and document local leaders' views concerning the towns' futures and the University's growth.

Rules & Requirements

 IDEAs in Action Gen Ed: FY-SEMINAR.

Making Connections Gen Ed: SS.

Grading Status: Letter grade.

PLAN 52. First-Year Seminar: Race, Sex, and Place in America. 3 Credits.

This first-year seminar will expose students to the complex dynamics of race, ethnicity, and gender and how these have shaped the American city since 1945.

Rules & Requirements

 IDEAs in Action Gen Ed: FY-SEMINAR, FC-POWER.

Making Connections Gen Ed: SS.

Grading Status: Letter grade.

Same as: WGST 51.

PLAN 53. First-Year Seminar: The Changing American Job. 3 Credits.

Explores the changing nature of the American job and the transformative forces from global trade and outsourcing to corporate restructuring and new skill demands that have influenced this change.

Rules & Requirements

 IDEAs in Action Gen Ed: FY-SEMINAR.

Making Connections Gen Ed: CI, NA.

Grading Status: Letter grade.

PLAN 54. First-Year Seminar: Bringing Life Back to Downtown: Commercial Redevelopment of Cities and Towns. 3 Credits.

The seminar seeks to understand the current realities of North Carolina's inner-city communities in the context of their historical evolution and the current proposals for revitalization. Each student selects one city or town for a case study.

Rules & Requirements

 IDEAs in Action Gen Ed: FY-SEMINAR.

Making Connections Gen Ed: SS.

Grading Status: Letter grade.

PLAN 55. First-Year Seminar: Sustainable Cities. 3 Credits.

How can the sustainability of cities and their ability to meet the needs of disadvantaged groups be improved? In this seminar students will look at the evolution of cities throughout history to find out how they have coped with threats to sustainability.

Rules & Requirements

 IDEAs in Action Gen Ed: FY-SEMINAR.

Making Connections Gen Ed: SS.

Grading Status: Letter grade.

PLAN 57. First-Year Seminar: What Is a Good City?. 3 Credits.

After studying the forces that have produced the American urban landscape, we will explore the city from the normative perspectives of urban historians, planners and architects, social scientists, social critics, and futurists, as a way for each student to develop her/his own perspective about what a "good city" might be. Honors version available.

Rules & Requirements

 IDEAs in Action Gen Ed: FY-SEMINAR.

Making Connections Gen Ed: SS.

Grading Status: Letter grade.

PLAN 58. First-Year Seminar: Globalization and the Transformation of Local Economies. 3 Credits.

Using directed readings, participative class exercises, and cases that cut across developed and developing countries, this seminar will focus on how global pressures and economic integration is changing local economies.

Rules & Requirements

 IDEAs in Action Gen Ed: FY-SEMINAR.

Making Connections Gen Ed: SS, GL.

Grading Status: Letter grade.

PLAN 59. First-Year Seminar: World's Fairs. 3 Credits.

This first-year seminar focuses on the constructed images of the modern American city. We have selected six U.S. World's Fairs between 1893 and 1965 (1884 World Cotton Centennial, New Orleans; 1893 World's Colombian Exposition, Chicago; 1904 Louisiana Purchase Exposition, Saint Louis; 1939 New York World's Fair, New York City; 1962 Seattle World's Fair; 1964/1965 New York World's Fair). By examining them in detail, we can follow shifts in conceptions of cities (and the world).

Rules & Requirements

 IDEAs in Action Gen Ed: FY-SEMINAR.

Grading Status: Letter grade.

Same as: ARTH 59.

PLAN 89. First-Year Seminar: Special Topics. 3 Credits.

Special topics course. Content will vary each semester.

Rules & Requirements

 IDEAs in Action Gen Ed: FY-SEMINAR.

Grading Status: Letter grade.

PLAN 101. Cities and Urban Life. 3 Credits.

This course will introduce students to the topic of cities and urban life. Over 80% of the United States' population lives in cities or their suburbs, and over half of the world's population lives in urban areas. Studying cities and urban life is important to understanding how human societies have developed, how our households live and function, how our economies grow and innovate, how our culture develops and influences, and an array of other topics.

Rules & Requirements

IDEAs in Action Gen Ed: FC-KNOWING or FC-POWER.

Making Connections Gen Ed: SS, US.

Grading Status: Letter grade.

PLAN 246. Cities of the Past, Present, and Future: Introduction to Planning. 3 Credits.

Introduction to the evolution of cities in history, to the concept of urban morphology or form, and to the different elements or subsystems of the urban system and how they have changed over time.

Rules & Requirements

IDEAs in Action Gen Ed: FC-PAST.

Making Connections Gen Ed: SS.

Grading Status: Letter grade.

PLAN 247. Solving Urban Problems. 3 Credits.

Introduction to methods used for solving urban problems. Covers methods employed in subfields of planning to develop an ability to critically evaluate different techniques and approaches used within these disciplines.

Rules & Requirements

IDEAs in Action Gen Ed: FC-VALUES, RESEARCH.

Making Connections Gen Ed: SS.

Grading Status: Letter grade.

PLAN 270. Urban Inequality and Inclusion. 3 Credits.

American cities are creative, vibrant, dynamic and diverse places. Yet the prosperity, opportunity and creativity that we so often celebrate and associate with urban life is not evenly shared or universally experienced. This class is designed to help us think through the factors that contribute to urban inequality and also consider the potential (but also the limits) of solutions that are designed with those inequities in mind.

Rules & Requirements

IDEAs in Action Gen Ed: FC-POWER.

Grading Status: Letter grade.

PLAN 317. Introduction to Site Planning and Urban Design. 3 Credits.

This course examines site planning as a process of creating the built environment. A site planner considers many things, including site hydrology, topography, building form, access, and regulation. Students will review the theories of urban design that guide site planning, conduct a site analysis and propose a site plan.

Rules & Requirements

Grading Status: Letter grade.

PLAN 326. Social Entrepreneurship. 3 Credits.

Examines students' knowledge and understanding of social entrepreneurship as an innovative approach to addressing complex social needs. Affords students the opportunity to engage in a business planning exercise designed to assist them in establishing and launching a social purpose entrepreneurial venture. Honors version available.

Rules & Requirements

Grading Status: Letter grade.

Same as: PLCY 326, ECON 326.

PLAN 330. Principles of Sustainability. 3 Credits.

This course introduces students to theories, principles, and measurement of sustainability. It also provides an overview of sustainability in national and international contexts.

Rules & Requirements

Making Connections Gen Ed: SS, GL.

Grading Status: Letter grade.

Same as: ENEC 330.

PLAN 363. Personal Finance, Wealth Building, and Public Policy. 3 Credits.

This course examines the skills to make important financial decisions such as buying a car, a house, paying for college, and managing credit and debt. Students will also learn about the fundamentals of investment and retirement planning to prepare them for a lifetime of wealth building. Finally, students will learn about public policy initiatives aimed at increasing the wealth building opportunities of low-income and minority households and communities.

Rules & Requirements

IDEAs in Action Gen Ed: FC-QUANT.

Grading Status: Letter grade.

PLAN 372. Introduction to Urban Data Analytics. 3 Credits.

This course introduces the techniques and tools used to assemble, manage, and analyze many types of data used to support decision-making in urban environments. Students will learn to work with messy and incomplete datasets, an important part of the course will be learning to clean and analyze imperfect data. The goal of this course is to prepare students to apply urban data analytics in practice.

Rules & Requirements

Grading Status: Letter grade.

PLAN 390. Undergraduate Special Topics in Urban and Regional Studies. 1-3 Credits.

This course examines selected urban and regional issues under guidance of a member of the faculty.

Rules & Requirements

Repeat Rules: May be repeated for credit; may be repeated in the same term for different topics; 12 total credits. 4 total completions.

Grading Status: Letter grade.

Advanced Undergraduate and Graduate-level Courses**PLAN 420. Community Design and Green Architecture. 3 Credits.**

The impact of building on the environment and health will be examined by looking at the major areas of: land use planning, water resource use, energy, materials and indoor environment.

Rules & Requirements


Grading Status: Letter grade.

Same as: ENEC 420.

 **PLAN 428. Global Cities: Space, Power, and Identity in the Built Environment. 3 Credits.**

This course addresses questions of power, politics, and identity in the urban environment, with a focus on the emergence of key selected global cities and the processes that both created them historically and which are currently transforming them locally and globally.

Rules & Requirements

 **IDEAs in Action Gen Ed:** FC-GLOBAL or FC-VALUES, RESEARCH.
Making Connections Gen Ed: SS, GL.

Repeat Rules: May be repeated for credit. 6 total credits. 2 total completions.

Grading Status: Letter grade.

Same as: GEOG 428.

PLAN 491. Introduction to GIS. 3 Credits.

Stresses the spatial analysis and modeling capabilities of organizing data within a geographic information system. (GISci)

Rules & Requirements

Requisites: Prerequisite, GEOG 370; permission of the instructor for students lacking the prerequisite.

Grading Status: Letter grade.

Same as: GEOG 491.

PLAN 526. Principles of Public Finance for Public Policy and Planning. 1.5 Credits.

Provides the foundation of state and local government finance necessary to understand new developments in the provision of infrastructure for economic development.

Rules & Requirements

Grading Status: Letter grade.

PLAN 539. Understanding and Planning for Freight Flows. 3 Credits.

This course introduces students to the unique characteristics of freight transportation and the impact of urban and regional planning. Freight transport, which is a critical segment of supply chains, is undergoing dramatic changes. The impact of e-Commerce is revealed in the constant re-organization of supply chains and the need for freight transport to respond accordingly.

Rules & Requirements

Grading Status: Letter grade.

PLAN 547. Energy, Transportation, and Land Use. 3 Credits.

This course explores the reciprocal connections between energy (production/conversion, distribution, and use), land use, environment, and transportation. Evaluation of federal, state, and local policies on energy conservation and alternative energy sources are emphasized. Students gain skills to analyze impacts, interdependencies, and uncertainties of various energy conservation measures and production technologies.

Rules & Requirements

Grading Status: Letter grade.

Same as: ENEC 547.

PLAN 548. Sustainable Energy Systems. 3 Credits.

This course will provide an introduction to urgent topics related to energy, sustainability, and the environment. The course material will focus on new technologies, policies, and plans in cities and different governing bodies in the energy system with a focus on developing tools to analyze energy for its sustainability, impact on people, the environment, and the economy.

Rules & Requirements

Grading Status: Letter grade.

Same as: ENEC 548, ENVR 548.

PLAN 550. Evolution of the American City. 3 Credits.

Examines shaping the urban built environments of the United States from the colonial era to present day. Critically examines forces that shaped our cities, and studies the values, ideals, and motivations underlying efforts to plan and direct physical development of American cities.

Rules & Requirements

Making Connections Gen Ed: SS.

Grading Status: Letter grade.

PLAN 562. Seminar on The Ethics and Politics of New Urban Analytics. 3 Credits.

While there is no consistent definition of what smart cities are, urban spaces blanketed with ubiquitous and heterogeneous sensor networks that are constantly monitoring the vitality of the city are becoming common place. Such continuous surveillance raises deep political and ethical questions as well as questions about institutional reconfiguration. We will examine urban analytics platforms and interrogate them from a variety of lenses, including privacy, equity, and probity. Previously offered as PLAN 673.

Rules & Requirements

Grading Status: Letter grade.

PLAN 573. We're Everywhere: The Life of LGBTQ+ Spaces in the US. 1.5 Credits.

Since the end of the Second World War, if not before, more and more cities of the United States have come to feature spaces identified by members of LGBTQ communities and their heterosexual, cis-gendered counterparts, as gay, lesbian, or queer. This class introduces students to the social, political, and economic life of LGBTQ spaces in the United States, and asks students to consider their importance and the merits of planning for their improvement and/or conservation.

Rules & Requirements

Grading Status: Letter grade.

PLAN 574. Political Economy of Poverty and Inequality. 3 Credits.

Introduces students to the political economy of poverty alleviation programs. Uses comparative cases to explore what types of projects, tasks, and environments lead to effective and equitable outcomes, and why.

Rules & Requirements

Grading Status: Letter grade.

PLAN 575. Real Estate Development. 3 Credits.

Rigorous examination of real estate development from the entrepreneurial and public perspectives. Emphasis on risk management and the inherent uncertainties of development. The four dimensions of real estate are addressed: economic/market, legal/institutional, physical, and financial. Previously offered as PLAN 375

Rules & Requirements

IDEAs in Action Gen Ed: HI-INTERN.

Making Connections Gen Ed: EE- Field Work.

Grading Status: Letter grade.

PLAN 576. Urbanism in the Global South. 3 Credits.

This course introduces concepts and themes on the development of urbanism in the "Global South". Students engage with current debates over urbanism in the Global South, including looking at urban inequalities in contemporary cities. Through the course, students will be able to compare and critically analyze formations of contemporary urbanism in selected cities in the Global South from a comparative perspective.

Rules & Requirements

IDEAs in Action Gen Ed: FC-GLOBAL.

Grading Status: Letter grade.

Same as: AAAD 492.

PLAN 590. Special Topics Seminar. 1-9 Credits.

Original research, fieldwork, readings, or discussion of selected planning issues under guidance of a member of the faculty.

Rules & Requirements

Repeat Rules: May be repeated for credit; may be repeated in the same term for different topics; 9 total credits. 3 total completions.

Grading Status: Letter grade.

PLAN 591. Applied Issues in Geographic Information Systems. 3 Credits.

Applied issues in the use of geographic information systems in terrain analysis, medical geography, biophysical analysis, and population geography.

Rules & Requirements

Requisites: Prerequisite, GEOG 370 or 491.

Grading Status: Letter grade.

PLAN 596. Independent Study. 1-9 Credits.

This course permits full-time undergraduate students enrolled in the Department of City and Regional Planning who wish to pursue independent research or an independent project to do so under the direction of a member of the department faculty.

Rules & Requirements

Repeat Rules: May be repeated for credit; may be repeated in the same term for different topics; 9 total credits. 3 total completions.

Grading Status: Letter grade.

PLAN 635. Energy Modeling for Environment and Public Health. 3 Credits.

Recommended preparation, MATH 231. This course will equip students with an overview of contemporary issues in energy modeling and energy systems analysis, with a focus on environmental and public health impacts of energy systems. Students will gain exposure to a variety of research methodologies, analytical tools, and applications of energy modeling applied to environmental and public health related problems such as climate change, air pollution, and water footprints of energy systems.

Rules & Requirements

Grading Status: Letter grade.

Same as: ENVR 635, ENEC 635.

PLAN 636. Urban Transportation Planning. 3 Credits.

Fundamental characteristics of the urban transportation system as a component of urban structure. Methodologies for the analysis of transportation problems, planning urban transportation, and the evaluation of plans.

Rules & Requirements

Grading Status: Letter grade.

PLAN 637. Public Transportation. 3 Credits.

Alternative public urban transportation systems including mass transit, innovative transit services, and paratransit, examined from economic, land use, social, technical, and policy perspectives.

Rules & Requirements

Grading Status: Letter grade.

PLAN 638. Pedestrian and Bike Transportation. 3 Credits.

This graduate-level course examines the importance of multimodal transportation planning and provides a comprehensive overview of best planning practices to support increased walking and bicycling.

Rules & Requirements

Grading Status: Letter grade.

PLAN 639. Complete, Safe, Equitable Streets. 3 Credits.

This course will interrogate the role of streets in communities paying particular attention to how streets contribute to mobility, accessibility, economic vibrancy, social cohesion, and safety from crime and traffic danger. We will consider how different people are affected by streets and transport policy.

Rules & Requirements

IDEAs in Action Gen Ed: HI-INTERN.

Grading Status: Letter grade.

PLAN 640. Roadways for a Safer Future. 1 Credits.

Deaths and serious injuries from traffic crashes have been rising steadily on US roadways in recent years. Despite growing investment in safe walking and bicycling facilities, pedestrians and bicyclists bear a disproportionate share of these deaths and injuries. Through a combination of field work, lectures, and facilitated discussions, the Roadways for a Safer Future course introduces students to data collection, analysis, and communication techniques that are critical for understanding and advancing road safety for all.

Rules & Requirements

IDEAs in Action Gen Ed: HI-INTERN.

Grading Status: Letter grade.

PLAN 641. Watershed Planning. 3 Credits.

This course explores the functions of ecosystems, land development activities that impact such functions, and the land use management tools to create strategies for mitigating and restoring environmental damage. Course goals include understanding the ecological context of planning and how ecological principles may inform planning decisions. Prepares planners to engage effectively with biologists, natural resource managers, park managers, and other professionals from the natural sciences.

Rules & Requirements

Grading Status: Letter grade.

Same as: ENEC 641.

 **PLAN 647. Coastal Management Policy. 3 Credits.**

This course is an introduction to coastal management with a particular focus on managing the risks from natural hazards and climate change. It is designed for undergraduate juniors and seniors and graduate students. The focus of this class is on understanding the challenges that coastal communities face, how coasts are currently managed, and different strategies for responding in a rapidly changing world. Previously offered as PLAN 747. Juniors, Seniors, and Graduate students only.

Rules & Requirements

 **IDEAs in Action Gen Ed:** FC-NATSCI.

Grading Status: Letter grade.

PLAN 651. Urban Form and the Design of Cities. 3 Credits.

Lecture course on comparative urbanism and the global evolution of the city form. Examines values and ideals embedded in urban landscapes, seeking to understand how social, economic, and political forces have influenced the development of cities through history.

Rules & Requirements

Grading Status: Letter grade.

PLAN 652. Site Planning and Urban Design. 3 Credits.

This course examines site planning as a means of addressing concerns related to urban development including hydrology, vegetation, land use, urban form, access, regulation, and community priorities. Students conduct an analysis of a site and propose a plan for a hypothetical mixed-use development. Students learn the basics of the 3D modeling software, SketchUp.

Rules & Requirements

Grading Status: Letter grade.

PLAN 655. Planning for Natural Hazards and Climate Risk. 3 Credits.

An introduction to the human dimensions of natural hazards and climate change adaptation. What can we do to reduce losses from floods, fires, and other extreme weather events? How can we minimize the impacts of climate change? The focus of this course is on understanding how governance institutions, policies, politics, from individual to international influences the risks communities face. Previously offered as PLAN 755. Juniors, seniors and graduate students only.

Rules & Requirements

Grading Status: Letter grade.

 **PLAN 656. Climate Change Impacts and Adaptation. 3 Credits.**

An introduction to climate change impacts and adaptation for undergraduate juniors and seniors and graduate students. The focus of this course is understanding how social and environmental systems interact to create risk and damage. This course prepares students to design and implement adaptation strategies for organizations of all types, from businesses to government agencies. Students will learn to integrate information about climate hazards, natural systems, built infrastructure, and socioeconomic systems. Previously offered as PLAN 756. Restricted to juniors, seniors, and graduate students only.

Rules & Requirements

 **IDEAs in Action Gen Ed:** FC-NATSCI.

Grading Status: Letter grade.

PLAN 662. Gender Issues in Planning and Development. 3 Credits.

Permission of the instructor required for undergraduates. Examination of the environmental and health risks, policy institutions, processes, instruments, policy analysis, and major elements of American environmental policy. Lectures and case studies.

Rules & Requirements

Grading Status: Letter grade.

Same as: WGST 662.

PLAN 663. Diversity and Inequality in Cities. 3 Credits.

Permission of instructor needed for undergraduates. Introduces students in planning to issues related to diversity and inequality. Different aspects of diversity (e.g., gender, class, race, ethnicity, sexuality, nationality/citizenship) will be explored. Examines the relationship between diversity and the unequal distribution of resources and life trajectories.

Rules & Requirements

Making Connections Gen Ed: SS.

Grading Status: Letter grade.

 **PLAN 670. Planning Equitable Economies. 3 Credits.**

Introduction to basic theories, concepts, and strategies employed to pursue local and regional economic development. Clarifies similarities and distinctions with related planning perspectives including community development, investigates the economic logic behind various development initiatives, and reviews basic principles for critically examining alternative policies and programs. Previously offered as PLAN 770.

Rules & Requirements

 **IDEAs in Action Gen Ed:** FC-POWER.

Grading Status: Letter grade.

PLAN 671. Development Planning Techniques. 3 Credits.

Intermediate and advanced techniques for analyzing the development of local and regional economies. Social accounts, indicator construction, regional input-output models, economic and fiscal impact analysis, labor market analysis, and regional economic forecasting techniques. Previously offered as PLAN 771.

Rules & Requirements

Requisites: Prerequisite, Preparation in basic statistical methods demonstrated through successful completion of PLAN 720, ECON 400, BIOS 600, ENEC 562, STOR 155, PLCY 460 or equivalent.

Grading Status: Letter grade.

PLAN 672. Urban Data Analytics. 3 Credits.

This is a survey course about different techniques used in assembling, managing, analyzing, and predicting using heterogeneous data sets in urban environments. These include point, polygon, raster, vector, text, image, and network data; data sets with high cadence and high spatial resolution; and data sets that are inherently messy and incomplete. The emphasis is on practical urban analytics.

Rules & Requirements

Grading Status: Letter grade.

 **PLAN 677. Perspectives on Economic Development. 3 Credits.**

Fundamental concepts of economic development including growth, trade, product-cycle, flexible specialization, and entrepreneurship theories applied to local contexts. Economic development issues addressed in the North American, South American, European, or South Asian contexts.

Rules & Requirements

 **IDEAs in Action Gen Ed:** FC-KNOWING.

Grading Status: Letter grade.

PLAN 685. Water and Sanitation Planning and Policy in Less Developed Countries. 3 Credits.

Permission of the instructor. Seminar on policy and planning approaches for providing improved community water and sanitation services in developed countries. Topics include the choice of appropriate technology and level of service, pricing, metering, and connection charges; cost recovery and targeting subsidies to the poor; water venting; community participation in the management and operation of water systems; and rent-seeking behavior in the provision of water supplies.

Rules & Requirements

Grading Status: Letter grade.

Same as: ENVR 685.

PLAN 687. International Development and Social Change. 3 Credits.

Permission of the instructor. Course explores effect of the global economy on national and community development, effect of environmental degradation processes on development, and strategies to guide social change.

Rules & Requirements

Grading Status: Letter grade.

 **PLAN 691H. Honors Seminar in Urban and Regional Studies. 3 Credits.**

Permission of the instructor. An overview of the subject matter and methods of investigation for the study of cities and regions. Presentations of original papers prepared by students.

Rules & Requirements

 **IDEAs in Action Gen Ed:** RESEARCH.

Making Connections Gen Ed: EE- Mentored Research.

Grading Status: Letter grade.

Contact Information

Department of City and Regional Planning

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