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 56. 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, GL.
- 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.
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
Making Connections Gen Ed: SS.
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.
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 585. American Environmental Policy. 3 Credits.
Intensive introduction to environmental management and policy, including environmental and health risks; policy institutions, processes, and instruments; policy analysis; and major elements of American environmental policy. Lectures and case studies. Three lecture hours per week.

Rules & Requirements
Making Connections Gen Ed: HS, NA.
Grading Status: Letter grade.
Same as: ENVR 585, ENEC 585, PLCY 585.

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 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 Credit.
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.

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 686. Policy Instruments for Environmental Management. 3 Credits.
Design of public policy instruments as incentives for sustainable management of environmental resources and ecosystems, and comparison of the effects and effectiveness of alternative policies.

Rules & Requirements
Making Connections Gen Ed: SS.
Requisites: Prerequisite, ECON 410 or PLAN 710.
Grading Status: Letter grade.
Same as: PLCY 686, ENEC 686, ENVR 686.

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.
Grading Status: Letter grade.

PLAN 701. Research Methods. 1-6 Credits.
Course combines material learned in other courses (theory/philosophy, methods, and their substantive area of interest). Familiarizes students with the skills necessary to conduct research and critically review and understand evaluation reports.

Rules & Requirements
Grading Status: Letter grade.

PLAN 704. Theory of Planning I. 3 Credits.
The logic of planning as a professional activity. Critical overview of current process theories leading students to develop a personal philosophy applicable to their work as planners.

Rules & Requirements
Grading Status: Letter grade.

PLAN 710. Microeconomics for Planning and Public Policy Analysis. 3 Credits.
Introduction to principles of demand and supply, elasticity, marginal utility opportunity cost, pricing, production decisions, and profit maximization, cost-benefit analysis, financial appraisal, role of government, and market instruments for environmental protection.

Rules & Requirements
Grading Status: Letter grade.

PLAN 714. Urban Spatial Structure. 3 Credits.
Theories and empirical evidence of the contemporary spatial development of metropolitan areas. Industrial, residential, and commercial location; neighborhood change; the role of technological change and public policies; and normative perspectives.

Rules & Requirements
Repeat Rules: May be repeated for credit; may be repeated in the same term for different topics.
Grading Status: Letter grade.
PLAN 720. Planning Methods. 3 Credits.
Permission of the instructor for undergraduates. Accessing information from conventional and electronic sources, spatial data acquisition, analysis and mapping. Inferential statistics through multiple regression. Microcomputer laboratory.

Rules & Requirements
Repeat Rules: May be repeated for credit; may be repeated in the same term for different topics.
Grading Status: Letter grade.

PLAN 721. Advanced Planning Methods. 1.5 Credits.
Permission of the instructor for undergraduates. More in-depth treatment of topics covered in PLAN 720. Particular emphasis on techniques of multiple regression analysis, forecasting, categorical data analysis, and spatial data analysis.

Rules & Requirements
Repeat Rules: May be repeated for credit; may be repeated in the same term for different topics.
Grading Status: Letter grade.

PLAN 722. Systems Thinking and Modeling for Planners. 1.5 Credits.
This course will introduce systems thinking and system dynamics computer simulation modeling, a computer-aided approach to policy analysis and design. The goal of this course is to enhance knowledge and skills in understanding and analyzing the complex feedback dynamics in social, economic, and environmental problems.

Rules & Requirements
Grading Status: Letter grade.

PLAN 724. Introduction to Law for Planners. 3 Credits.
Governmental institutions, real property, constitutional law, land use law, and environmental law.

Rules & Requirements
Grading Status: Letter grade.

PLAN 725. Development Dispute Resolution. 3 Credits.
Contemporary methods of resolving development disputes through negotiation, bargaining, and mediation. Techniques and skills applicable to solving controversies over planning and implementation of public and private development projects.

Rules & Requirements
Grading Status: Letter grade.

PLAN 720. Data Collection Methods. 3 Credits.
Reviews alternative data collection techniques used in surveys, concentrating on the impact these techniques have on the quality of survey data. Topics covered include errors associated with nonresponse, interviewing, and data processing.

Rules & Requirements
Grading Status: Letter grade.
Same as: SOCI 760, POLI 860.

PLAN 731. Questionnaire Design. 3 Credits.
Examines the stages of questionnaire design including developmental interviewing, question writing, question evaluation, pretesting, questionnaire ordering, and formatting. Reviews the literature on questionnaire construction. Provides hands-on experience in developing questionnaires.

Rules & Requirements
Grading Status: Letter grade.
Same as: SOCI 761, POLI 861.

PLAN 735. Community Revitalization Applied. 3 Credits.
Students apply their skills in business, planning, or public administration to actual community revitalization projects in North Carolina communities. Projects require an understanding of community development methods, the real estate development process, and public-private partnerships. Students will manage client relationships and learn how their skills contribute to solving community challenges.

Rules & Requirements
Repeat Rules: May be repeated for credit. 3 total credits. 1 total completions.
Grading Status: Letter grade.
Same as: PUBA 735.

PLAN 738. Transportation Policy and Planning. 3 Credits.
Examination of active transportation planning and policy questions: land use relationships, modal comparisons, environmental quality, transportation demand management, paratransit planning, the transportation needs of special populations, and international comparisons.

Rules & Requirements
Requisites: Prerequisite, PLAN 636; permission of the instructor for students lacking the prerequisite.
Grading Status: Letter grade.

PLAN 739. Transportation Planning Models. 3 Credits.
Permission of the instructor for undergraduates. The transportation planning process; data collection, trip generation, modal choice, trip distribution and assignment. Social, economic, and environmental impacts of transportation. Innovative modeling techniques.

Rules & Requirements
Grading Status: Letter grade.

PLAN 740. Land Use and Environmental Policy. 3 Credits.
History, institutional setting, rationale of state and local land use, and environmental policies. Program and policy frameworks, political and market processes, resource utilization concepts, and contemporary development and resource management.

Rules & Requirements
Grading Status: Letter grade.

PLAN 741. Land Use and Environmental Planning. 3 Credits.
Methods of land use planning. Use of GIS and spreadsheets to analyze land suitability and spatial needs. Preparation of land classification plans, land use design plans, and development management programs.

Rules & Requirements
Grading Status: Letter grade.
PLAN 744. Development and Environmental Management. 3 Credits.
Coordination of public powers and private actions to implement
development plans and conserve environmental resources. Regulatory,
public investment, incentive, and policy instruments used in land use and
environmental guidance systems.

Rules & Requirements
Grading Status: Letter grade.

PLAN 745. Development Impact Assessment. 3 Credits.
Methods for data management and predictive analysis of the
environmental, transportation, and other infrastructure; fiscal and social
impacts of land development projects. Impact mitigation measures are
also examined.

Rules & Requirements
Grading Status: Letter grade.

PLAN 752. Project and Site Planning. 3 Credits.
Techniques of site analysis, project programming, and arrangement of
structures on the land. Workshop covering design and review of urban
development projects within limitations of regulatory standards and
market criteria.

Rules & Requirements
Repeat Rules: May be repeated for credit; may be repeated in the same
term for different topics.
Grading Status: Letter grade.

PLAN 754. Natural Hazards Resilience Speaker Series. 1 Credits.
Invited practitioners and scholars will discuss a range of pertinent topics,
including research findings and experience in practice tied to disaster
management and climate change adaptation. Speakers will include
a range of officials, scholars, private sector representatives, media
members, politicians, advocates, community leaders, and members of
various professional associations.

Rules & Requirements
Grading Status: Letter grade.

PLAN 757. Planning for Historical Preservation. 3 Credits.
Concepts, processes, and policies for historic preservation; its role in the
community planning and development process.

Rules & Requirements
Grading Status: Letter grade.

PLAN 760. Real Estate Investment and Affordable Housing. 3 Credits.
Fundamentals and techniques of real estate investment analysis,
including cases and computer modeling; applications of the public
interest in private investment decisions; tax and other public policies
influencing real estate investments; and affordable housing.

Rules & Requirements
Grading Status: Letter grade.

PLAN 761. Housing and Public Policy. 3 Credits.
A theory-based course in housing and market dynamics; the justification
for government intervention and the operations of the mortgage market
and construction industry. Students develop skills for housing market and
policy analysis.

Rules & Requirements
Grading Status: Letter grade.

PLAN 762. Central City Revitalization. 3 Credits.
Analyzes central cities over past twenty years and factors affecting their
growth or decline. Analyzes how economic, social, physical conditions of
central cities can be improved through large-scale urban-planning efforts.

Rules & Requirements
Grading Status: Letter grade.

PLAN 763. Urban Neighborhood Revitalization. 3 Credits.
Social, political, and economic theory of local communities. Models of
neighborhood change. Neighborhood revitalization: theoretical aspects;
federal, state, and local programs; role of nonprofit organizations; step-by-
step process for revitalizing an area.

Rules & Requirements
Grading Status: Letter grade.

PLAN 764. Community Development & Revitalization Techniques. 3
Credits.
Community revitalization requires mastery of community development
methods, the real estate development process, and public-private
partnerships. Techniques include demographic trend analysis,
stakeholder identification, government entitlement review, area and parcel
analysis, market research, and pro forma financial analysis.

Rules & Requirements
Grading Status: Letter grade.
Same as: PUBA 734.

PLAN 765. Real Estate Development. 3 Credits.
The dynamics of real property development from the developer's
perspective covering market research, government relations, site
planning, financing, investment analysis, construction and project
management, and marketing.

Rules & Requirements
Grading Status: Letter grade.

PLAN 766. Housing Law. 3 Credits.

Rules & Requirements
Grading Status: Letter grade.

PLAN 767. Diversity and Inequalities in Cities. 3 Credits.
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
Grading Status: Letter grade.

PLAN 769. Housing & Community Development Planning and Policy. 3
Credits.
This graduate course will explore issues of housing and community
development policy and planning issues at the national, state, and local
level in the United States. It will provide an overview of the historic and
contemporary housing planning and policy issues that have shaped
communities and households.

Rules & Requirements
Grading Status: Letter grade.
PLAN 773. Economic Development Seminar. 3 Credits.
Fundamental concepts and theories applied to local economic development including growth, trade, product-cycle, flexible specialization, and entrepreneurship theories. Urban and regional economic development issues addressed in the North American, South American, European, or South Asian contexts.

Rules & Requirements
Grading Status: Letter grade.

PLAN 774. Planning for Jobs. 3 Credits.
This graduate seminar examines the policy and planning implications of changing labor market conditions and their impact on U.S. workers, especially the working poor.

Rules & Requirements
Grading Status: Letter grade.

PLAN 776. Development Finance. 3 Credits.
Community development financial institutions and loan funds for local asset building and wealth creation. Investment analysis to structure and finance local projects. Real estate and business development cases.

Rules & Requirements
Grading Status: Letter grade.

PLAN 781. Water Resources Planning and Policy Analysis. 3 Credits.
Water resources planning and management. Federal and state water resources policies. Analytical skills to identify environmental problems associated with urban water resources development.

Rules & Requirements
Grading Status: Letter grade.
Same as: ENVR 781.

PLAN 785. Public Investment Theory. 3 Credits.
Basic theory, process, and techniques of public investment planning and decision making, involving synthesis of economic, political, and technologic aspects. Theory underlying benefit-cost analysis, adaptation to a descriptive and normative model for planning public projects and programs.

Rules & Requirements
Requisites: Prerequisite, PLAN 710.
Grading Status: Letter grade.
Same as: ENVR 785.

PLAN 786. Environmental Quality Management. 3 Credits.
Planning and analysis of regional environmental system with a focus on management of mass flows that affect the quality of the regional environment.

Rules & Requirements
Grading Status: Letter grade.
Same as: ENVR 786.

PLAN 787. Applied Environmental Finance: How to Pay for Environmental Services. 3 Credits.
How can governments, communities, organizations, and businesses fund environmental services? This applied course reviews the diverse tools and strategies that environmental service providers use to pay for programs. The course will focus on environmental services related to: drinking Water, wastewater, storm-water, watershed protection, energy efficiency, renewable energy, sustainability, and wetlands.

Rules & Requirements
Grading Status: Letter grade.
Same as: PUBA 787, ENVR 787.

PLAN 788. Advanced Economic Analysis for Public Policy I. 3 Credits.
This course introduces microeconomic theory using multivariate calculus and constrained optimization. Topics covered include consumer theory, producer theory, market equilibrium, taxes, and market power. Applied public policy examples are incorporated.

Rules & Requirements
Grading Status: Letter grade.
Same as: PLCY 788.

PLAN 789. Advanced Economic Analysis for Public Policy II. 3 Credits.
This course provides further applications of economic theory to public policy including risk and uncertainty, information economics, general equilibrium and welfare policy, externalities, public goods and taxation, and game theory.

Rules & Requirements
Requisites: Prerequisite, PLCY 788.
Grading Status: Letter grade.
Same as: PLCY 789.

PLAN 793. Planning Seminar. 1-15 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. 15 total credits. 15 total completions.
Grading Status: Letter grade.

PLAN 800. Research Design. 3 Credits.
This course provides an introduction to research design methods for planning and applied policy research. The design of a research endeavor is arguably the most important part of the investigation, together with what data is collected, how it is collected, and how the data are analyzed.

Rules & Requirements
Grading Status: Letter grade.

PLAN 801. Design of Policy-Oriented Research. 3 Credits.
Logic of designing research for the analysis of planning problems and the formulation of public policies. Elements of research design, case study, survey research, quasi-experimental designs, and the social experiment are covered.

Rules & Requirements
Grading Status: Letter grade.
Same as: PLCY 801.
PLAN 802. Advanced Seminar in Research Design: Data, Methods, and Evaluation. 3 Credits.
Three main objectives: to deepen students’ understanding of important issues and topics in the design of empirical research, to further develop students’ ability to critically evaluate research designs and policy-related products, and to aid in developing a research paper, dissertation, or other product.

Rules & Requirements
Grading Status: Letter grade.
Same as: PLCY 802.

PLAN 805. Theory of Planning II. 3 Credits.
Construction of methodologies for evaluating various theories of planning and intensive analysis of the North American planning theory literature. Doctoral-level introduction to the area.

Rules & Requirements
Grading Status: Letter grade.

PLAN 823. Planning Workshop. 3 Credits.
Problem-solving, client-based courses designed to give students experience in applying planning theory and methods to actual problem situations in economic development, housing and community development, real estate, environmental planning, and land use and transportation.

Rules & Requirements
Repeat Rules: May be repeated for credit.
Grading Status: Letter grade.

PLAN 890. Special Topics in Planning and Urbanism. 1-3 Credits.
Reading, lectures, and discussions to provide opportunities to develop new concepts and courses in various city and regional planning topics.

Rules & Requirements
Repeat Rules: May be repeated for credit.
Grading Status: Letter grade.

PLAN 891. Special Topics in Planning and Urbanism. 3 Credits.
Reading, lectures, and discussions to provide opportunities to develop new concepts and courses in various city and regional planning topics.

Rules & Requirements
Grading Status: Letter grade.

PLAN 896. Independent Study. 1-15 Credits.
This course permits full-time graduate 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.
Grading Status: Letter grade.

PLAN 911. Ph.D. Research Seminar. 1-15 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.
Grading Status: Letter grade.

PLAN 992. Master's (Non-Thesis). 3 Credits.
The master's project is original work, involving a substantial degree of independent research and/or analysis. May be a research paper, critical essay, development and evaluation of a program, project, or plan.

Rules & Requirements
Repeat Rules: May be repeated for credit.

PLAN 994. Doctoral Research and Dissertation. 3 Credits.
Rules & Requirements
Repeat Rules: May be repeated for credit.