

# RE DEVELOPMENT (DEVE1-GC)

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## **DEVE1-GC 1010 Land Use & Environmental Regulation (3 Credits)**

*Typically offered Fall, Spring, and Summer terms*

This course addresses in detail the full range of federal, state and local governmental regulations that a developer may have to deal with relating to issues such as water, air and hazardous materials. It also covers regional land use regulatory programs such as those found in select states, and local subdivision, zoning and special purpose ordinances. Emphasis would be on identifying what measures apply to a given project, formulating a strategy for addressing each, and understanding the reasons for their adoption.

**Grading:** GC SCPS Graded

**Repeatable for additional credit:** No

## **DEVE1-GC 1020 Planning & Design Issues in Development (3 Credits)**

*Typically offered Fall, Spring, and Summer terms*

This course addresses planning at the regional, community, neighborhood and site as practiced by both the public and private sectors. It examines the public master planning process as well as the project site planning and trends in planning and regulation such as smart growth and sustainability. In the design area, the course addresses building design and design theory for various product types as well as urban design.

**Grading:** GC SCPS Graded

**Repeatable for additional credit:** No

## **DEVE1-GC 1025 Construction Methods & Technology (3 Credits)**

*Typically offered Fall, Spring, and Summer terms*

This course provides an understanding of construction methods, building systems, material and equipment selection. It provides the Construction Manager and Developer with the knowledge required to effectively understand the various components of a building. This will include: the mechanical, electrical, plumbing and sprinkler systems; the exterior and roofs of buildings; the structural make-up of a project (concrete, steel, wood and stone); types of foundations that could be used for a project; materials for interior construction work. Some discussion will be held in regard to cost differences of materials and systems used and the efficiency of potential systems being considered.

**Grading:** GC SCPS Graded

**Repeatable for additional credit:** No

## **DEVE1-GC 1035 Real Estate Finance (3 Credits)**

*Typically offered Fall, Spring, and Summer terms*

This course covers the debt and equity financing of real estate with particular emphasis on income-producing property. It identifies and explains the legal instruments involved in mortgage underwriting and lending; the role of government in the financing of commercial and residential real estate; sources of both private and public debt and equity capital, and the financing of real estate construction and development activity. The course analyzes income property cash flows, the valuation of property, the measurement of investment returns and the impact of debt leverage and income taxes.

**Grading:** GC SCPS Graded

**Repeatable for additional credit:** No

## **DEVE1-GC 1045 Real Estate Economics & Market Analysis (3 Credits)**

*Typically offered Fall, Spring, and Summer terms*

This course examines connections between the national and global economies and real estate markets from both theoretical and an empirical perspectives. It explores the performance of specific property types under different macroeconomic business and growth cycles and changing monetary conditions. The course explores key policy issues, their economic impact on real-estate decision-making, and identifies indicators used to track economic and real estate performance. The course also examines the economic structure of major metropolitan areas, the impact of local governments on urban economic growth, the impact of urban economic growth on supply and demand identification for specific property types, and conditions under which certain regions thrive while others decline. Building upon the concepts and tools of economic analysis, this course introduces appropriate data sources and techniques useful in analyzing and forecasting real estate demand and supply in different markets for specific property types at specific locations. Class assignments will also follow current economic news and potential impacts for real estate markets.

**Grading:** GC SCPS Graded

**Repeatable for additional credit:** No

## **DEVE1-GC 1046 Real Estate Media and Information (1.5 Credits)**

In this course, students will examine the important role media, data and information technology play in real estate and why these components are essential to a successful real estate project. As with other major industries, real estate is covered closely by a variety of media outlets and analysts who document market cycles and trends vital to the final goal of a development. Real estate is a for-sale/lease and investment commodity, therefore it is routinely publicized in the media through PR, advertising and branding in order to garner attention and spur transactions. This course will teach students about the dynamic, often intricate relationship between developers and other real estate professionals and the array of media channels which impact each of them. Students will be focusing on a single mixed-use real estate project, for which they will devise a complete messaging campaign including PR, advertising and branding.

**Grading:** GC SCPS Graded

**Repeatable for additional credit:** No

## **DEVE1-GC 1050 Legal Principles & Practices (3 Credits)**

*Typically offered not typically offered*

This course teaches students the principles and instruments of real property and construction law, as well as when and how to utilize the legal system. It reviews the contracts and issues that arise in the course of construction, development, ownership and operations and examines the roles, rights, obligations and liabilities of the major parties involved in transactions including the owner, architect, engineer, contractor and allied professionals.

**Grading:** GC SCPS Graded

**Repeatable for additional credit:** No

## **DEVE1-GC 1055 Real Estate Valuation & Feasibility Analysis (3 Credits)**

*Typically offered Fall, Spring, and Summer terms*

This course provides an introduction to the income, market, and cost approaches with extensive treatment of the highest and best use concept and applications of discounted cash flow, income capitalization, and residual techniques. It emphasizes investment, risk, and lease valuation models and looks at their role in providing essential income and cash flow measurements used in arriving at sound value based decisions. Feasibility analysis realistically grounded in market analysis and featuring the cost versus value creation equation, is also treated.

**Grading:** GC SCPS Graded

**Repeatable for additional credit:** No

**DEVE1-GC 1060 The Development Process (3 Credits)***Typically offered Fall, Spring, and Summer terms*

This course provides a step by step analysis of the phases utilized in the real estate development process including conceptualization, site acquisition, zoning and permits, planning and design, the construction process, financing, and financial reporting and evaluation. The key components of construction contracts and subcontracts are covered including lump sum, unit price, and cost-plus delivery methods are examined. Leadership, management and control of the development team are featured issues.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 1065 Hotel Development and Investment (3 Credits)**

This course will explore the development process for hospitality properties from inception to operation and disposition, as well as methods of valuation and drivers of demand for a variety of property types, including downtown, suburban, boutique and resort. Students will become familiar with income analysis for food and beverage, retail components, spas and golf courses. Additionally, the course will introduce students to fundamental concepts of design psychology and considerations, as well as the space allocation and programming of public areas, guestrooms, back-of-house areas and amenities. Case studies and interactive assignments will be used to illustrate best practices, as well as the conditions under which certain properties thrive while others decline.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 2000 Real Estate Capital Markets (3 Credits)***Typically offered Fall, Spring, and Summer terms*

This course identifies the sources of debt and equity capital for commercial real estate, and the vehicles by which this capital is delivered to the property markets. In covering these topics, the course analyzes the 'four quadrants' of capital: private debt, public debt, private equity and public equity, including class discussions and exercises in the structure and pricing of CMBS and CRE CDO, and the performance and valuation metrics of equity REITs.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 2005 Public - Private Development (3 Credits)***Typically offered Fall, Spring, and Summer terms*

This course explores in detail the growing and varied practice of public private development, discussing the mechanisms for control and financing, and the political and media environment for such developments. The course considers the perspectives and trade-offs between public benefits and concessions, stakeholder involvement, sustainability, and the developer's and public's return on investment. The course will examine methods used to encourage growth, such as development on public land, zoning and urban renewal, public investment and tax incentives, and the entitlement processes. The value of public benefits including job creation, affordable housing, public infrastructure, landmark preservation and community facilities will be analyzed and related to the real estate developer, finance and market user valuations. A number of case studies of both large and small projects, and including the rapidly growing field of Transit Oriented Development, are utilized to illustrate the potential and risks of such public private efforts.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 2010 Entrepreneurship & Innovation in Re Develop (3 Credits)***Typically offered Fall, Spring, and Summer terms*

The Purpose of this course is to explore in-depth the numerous facets of new venture creation and growth and to foster innovation in real estate development projects. The emphasis is on bridging theory and practice to learn how to transform ideas into action. Specifically, this course analyzes the unique financial, legal, political, and organizational issues associated with entrepreneurial real estate development. Guest speakers who are successful entrepreneurs in real estate industry provide insights into understanding risks and capitalizing on opportunities for new ventures.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 2015 Applied Project in the Business of Development (3 Credits)***Typically offered Fall and Spring*

The capstone course in the Development concentration provides an overview and synthesis of the various disciplines, processes, and activities which comprise the development process. Each student is solely responsible for preparing a project proposal for a project of his or her choosing and for analyzing and critiquing project proposals prepared by others for a development, redevelopment, or rehabilitation project. In addition, the course offers a student an opportunity to review the principles, theories, information, and skills that the student has been introduced to during the course of their studies at the NYU Schack Institute of Real Estate.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 2100 Construction Cost Estimating (3 Credits)***Typically offered Fall and Spring*

This course examines various systematic approaches to cost estimating for the purposes of developing estimates and budgets to be used for competitive bidding, negotiation, cost tracking and analysis. Topics include: quantity surveys; detail take-offs; equipment and labor costs; equipment utility; subcontracting; overhead; insurance and surety bonds; contract document analysis; risk identification and management; changes; value engineering; profit and evaluation of intangibles; and bidding strategies. Prerequisite: the ability to read construction drawings and knowledge of construction math.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 2105 Green Building & Sustainable Development (3 Credits)***Typically offered Fall, Spring, and Summer terms*

Focusing on sustainability for building development and construction process, this course will cover the history, financial, regulatory and technical aspects involved with ecologically friendly construction, materials, technology and the art of recycling materials. Using the process to acquire LEEDS certification rating as the backbone for the course structure, students will examine the entire construction process and the life cycle costs and benefits involved in securing various rating levels. The course will also review the latest state energy code requirements and ASHRAE specifications as they relate to good and economical building designs.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No

**DEVE1-GC 2110 Infrastructure & Urban Development (3 Credits)***Typically offered occasionally*

Infrastructure provides the framework for all urban real estate development. This course discusses the major urban systems: water, sewer, storm drainage, electricity, telecommunication, and transportation including transit. The student will learn, via class and field experience, how these systems function, are crucial to long term sustainability, and impact real estate development in the United States and around the world. The course discusses macro-scale systems such as regional transportation, and also deals with the implications for neighborhoods and specific sites, including aspects of site planning.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 2115 Applied Project in Sustainable Development (3 Credits)***Typically offered Fall and Spring*

The capstone course in the Development concentration provides an overview and synthesis of the various disciplines, processes, and activities which comprise the development process. Each student is solely responsible for preparing a project proposal for a project of his or her choosing and for analyzing and critiquing project proposals prepared by others for a development, redevelopment, or rehabilitation project. In addition, the course offers a student an opportunity to review the principles, theories, information, and skills that the student has been introduced to during the course of their studies at the NYU Schack Institute of Real Estate.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 2200 Comparative International Real Estate (3 Credits)***Typically offered Fall and Spring*

This course is designed to provide students with a multi-disciplinary, comparative, practical and importantly a critical approach to assessing international real estate development projects, transactions and investments - it aims to cultivate multi-dimensional ways of thinking about real estate developments and investments tailored to a variety of unique contexts and conditions. Case studies will be used to anchor learning and class discussions on a variety of topics including financial markets, investment analysis, macro-economy, urbanization, public policy, role of governments, institutional voids in emerging markets, rules and regulations, infrastructure, affordable housing, inner-city markets, international partnerships, construction and project management, cross-cultural negotiations and a variety of other issues related to international real estate development projects, transactions and investments. This course may be suitable for students from a wide variety of backgrounds and interests, especially in the areas of real estate development, real estate finance, finance, banking and capital markets, international finance, international real estate investing, international affairs, architecture, urbanization, urban and public policy, city and regional planning, international strategy, inter-cultural studies, and government etc.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 2205 Advanced Real Estate Development and Investment Transactions (3 Credits)***Typically offered Fall and Spring*

This course will provide an advanced overview of real estate development and investment whether that development activity occurs here in the U.S. or overseas. The course will highlight differences and similarities between development activities in a variety of locations and of various property types. Students will analyze the differences in development methodology and consider how they could be advantageously applied in the U.S. Specific topics will include market perceptions, financing methods, construction methods, and sustainable design concepts.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 2210 Negotiation & Dispute Resolution (3 Credits)***Typically offered Fall, Spring, and Summer terms*

This course presents an examination of major negotiation theories, strategies and tactics as applied to real estate and construction transactions and disputes. Proposed and completed transactions are analyzed before or after each negotiation process as a benchmark for measuring the effectiveness of negotiators. Alternative dispute resolution techniques examined and practiced in the course include mediation, arbitration, and litigation settlement techniques. Students also review the defense of claims, liens and law suits. The role of ethics in professional practice is addressed.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 2215 Applied Project in Global Real Estate (3 Credits)***Typically offered Fall and Spring*

The capstone course in the Development concentration provides an overview and synthesis of the various disciplines, processes, and activities which comprise the development process. Each student is solely responsible for preparing a project proposal for a project of his or her choosing and for analyzing and critiquing project proposals prepared by others for a development, redevelopment, or rehabilitation project. In addition, the course offers a student an opportunity to review the principles, theories, information, and skills that the student has been introduced to during the course of their studies at the NYU Schack Institute of Real Estate. comprehensive and thorough application the completion of the course should demonstrate the student's comprehension of all prior courses undertaken in NYU Schack and ability to successfully compete in the real estate industry.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No

**DEVE1-GC 2300 Community and Civic Engagement in Real Estate Development (3 Credits)***Typically offered not typically offered*

As a real estate developer, it is vital to recognize the ability to positively influence the social and economic factors shaping metropolitan economies and urban neighborhoods, particularly low-wealth, impoverished and minority communities. This course will provide students with an understanding of the various issues that low-income communities face and that developers must address when working in many urban neighborhoods, including the role of community institutions in economic development, education challenges, workforce development, metropolitan food systems, public health concerns, and financing economic development project in urban neighborhoods. The course will utilize a variety of case studies from New York and around the world in exploration of various models of successful real estate development projects that have had a positive impact on communities.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 2315 Applied Project in Community Development (Capstone) (3 Credits)***Typically offered not typically offered*

This capstone course requires the student to take a real estate development project from concept to completion and through operation. Students will be expected to identify and develop a real estate project proposal (the "Project Proposal"), analyzing its impact to a community, design and construction, financial and market feasibility, and final users. While students will be responsible for preparing their own individual Project Proposals, they will also be expected to review the proposals of their peers. The capstone project should include an analysis of both public and private sector roles, community and other stakeholder involvement and the long term economic, environmental and social sustainability of the project. The completion of the course should demonstrate the student's comprehension of all prior courses undertaken in NYU Schack and ability to successfully compete in the real estate.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 2720 PropTech and the Digital Evolution of Real Estate (3 Credits)**

As the age of technology rapidly displaces and augments all aspects of the built environment, including design, construction, leasing, financing, and operations, students must begin to think critically and rationally about these platforms. The rapid adoption of technology within the real estate industry has created a surge of activity across the lifecycle of new products, from conceptualization, beta development, funding, production introduction, and industry adoption. This course introduces topics relating to the current ecosystem of Property Technology ("PropTech"), the evolution of the sector, and an in-depth analysis of each aspect of this lifecycle through a survey of existing PropTech platforms.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3000 Seminar in Community Development (3 Credits)***Typically offered not typically offered*

This Seminar will be an intensive, real-world, project-based exploration of the full array of challenges involved in real estate development. The focus of the course will be a competition between teams to create the most feasible and persuasive private investment and development project that also advances significant and explicit public policy and planning objectives.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3005 Managing Building Systems & Operations (3 Credits)***Typically offered Fall and Spring*

This course examines the essential business elements of property management as they relate to the maintenance, control and performance of the physical asset, specifically the mechanical, electrical, plumbing, fire safety, security and telecommunications systems as well as the building exterior and adjacent property. Topics covered include managing building operations including staff, contractors, vendors, and regulatory and contractual requirements, tenant relations and improvements, and building performance standards involved in lease obligations, office operations and reporting.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3010 Commercial Lease Analysis (3 Credits)***Typically offered Fall, Spring, and Summer terms*

This course provides an extensive and detailed overview and analysis of the commercial leasing process with a special emphasis on the theory and types of clauses used in a modern leasing transaction. It places leases in context with other commercial contracts, analyzes each of the major leases provisions and then examines leases as financial instruments. Students use financial devices as a tool for understanding leasing economics and participate in a negotiation workshop at the course end.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3015 Affordable Housing Finance and Development (3 Credits)***Typically offered Fall and Spring*

The course will serve as an introduction to the development and financing of affordable housing. It will provide an overview of the concept of housing affordability and primarily focuses on the financing tools used for affordable housing. The course will also examine the variety of governmental programs available and how they provide incentives for both private and not-for profit developers to create or preserve affordable housing. The stages of the development process will be explored, including how to get started, and the decisions and steps necessary to successfully complete an affordable housing development. While the course will be heavily weighted towards the NYC market, many of the concepts can be applied nationally.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No

**DEVE1-GC 3020 Deconstructing the Appraisal (3 Credits)***Typically offered occasionally*

The course is intended to be a seminar for those who have completed basic valuation courses. Its objective is to enable the students to read and review actual narrative appraisals from the standpoint of a lender or investor, and to determine whether the data and analysis provided is adequate or deficient in supporting the conclusion of the value estimate. The class will be divided into alternating lending and borrowing sides for each session. Discussion will focus on whether the appraisal supports the borrower's funding request or whether, in the lender's opinion, additional data is warranted and, if so, what is needed. The instructor will act as prompter/questioner to elicit thought and comment from both sides of the debate. Numbers and calculations will be secondary to the logic of analysis and the reasoning.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3024 Real Estate Development & Construction Finance (1.5 Credits)***Typically offered Spring*

This course will provide the student with important knowledge and understanding of the financial markets for real estate development and construction activities and the analytical methods used by real estate developers, lenders and investors in assessing these projects. The goal is for students to further their understanding of, and facility with, the various tools used in evaluating the financial feasibility of real estate development projects; to apply these analytical capabilities in making critical comparisons of various real estate development proposals; and to utilize these tools in formulating the capital structure of debt and equity for development and construction projects.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3025 Advanced Development Finance (3 Credits)***Typically offered occasionally*

Financial structure is a key element of modern real estate development, including both debt and equity. Building upon prior finance and development courses, this elective delves deeply into the nuances of financial modeling, alternative financial mechanisms including securitization, and risk analysis. The course includes review of mega-projects (over \$1 Billion), portfolio theory, and innovative techniques for small projects. The course also discusses mixed use projects with multiple financing sources and the use of public financing and guarantees. Students will do extensive financial analysis, and modeling incorporating use of private, public market and government funding sources.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3035 Project Management (3 Credits)***Typically offered occasionally*

This course presents the theory and practice of project management as a distinct discipline with applications in time, cost, and performance management. Managerial, organizational, behavioral and cost benefit aspects of project management are covered, as well as various applied models for organizing, executing, and monitoring a project. Models include the Critical Path Method (CPM), Precedence Diagramming Method (PDM), Program Evaluation and Review Technique (PERT), and Gantt charts.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3040 Urban Economic Development (3 Credits)***Typically offered Fall, Spring, and Summer terms*

This course examines the evolution in theory and practice of economic development concepts, programs, and projects in cities, with particular emphasis on the New York metropolitan area. It seeks to provide students with a basic understanding of forces affecting economic development strategies, information on successful and unsuccessful approaches, and an opportunity to engage in a critical analysis of current thinking and current issues in economic development.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3045 Applied Research Methods in Real Estate (3 Credits)***Typically offered occasionally*

This course provides students with the foundation to conduct rigorous empirical real estate research, primarily using quantitative analysis techniques. The course provides a comprehensive introduction to research design and methods and the analytical tools used to enhance real estate investment and development decision-making. Students learn how to develop the research question, select an appropriate research design, and collect, analyze, and interpret various forms of data using a wide variety of statistical techniques. The course covers a range of research designs and analytic techniques used in real estate, ranging from hedonic real estate pricing models, impact evaluation, and use of tools such as SPSS, as well as spatial analysis and presentation with Geographic Information Systems (GIS) software. Data sources, including the most important government and private information sources are discussed. Presentation skills focusing on the communication of quantitative methodologies and results will be discussed.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3050 Seminar in Post Catastrophe Reconstruction (3 Credits)***Typically offered not typically offered*

Emergency response situations, such as natural disasters and terrorist attacks are unfortunate, but reoccurring events in today's global society. This course explores in detail the variety of complex issues surrounding global post catastrophe reconstruction (PCR) situations with regard to real estate development, planning and construction related activities. This course will provide an understanding of the process and players in emergency response situations along with a critical historical analysis of previous reconstruction efforts. The course will compare and contrast the unique characteristics regarding various situations pertaining to PCR (e.g. natural disaster vs. terrorism, urban vs. rural, developing vs. developed nations), discuss issues surrounding immediate rapid response and long term reconstruction through the lens of a real estate developer. Finally, this course will evaluate pre-event preparedness plans and development aimed at lessening the occurrence and effects of emergency events.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No

**DEVE1-GC 3055 Political Environment of Development (3 Credits)***Typically offered not typically offered*

This course explores the political environment in which physical development takes place—the interplay among the developer, law, government bureaucracy, elected officials, the press and the public. Course topics include the political/community context in which development occurs, the legal framework (including zoning, historic preservation, environmental regulation, eminent domain, and the public approval process), tactics on how to win and how to defeat projects, the role of the press, the use of lobbyists, and appropriate case studies. Guest speakers will include people who have successfully managed through these processes. The skills developed in the course will be relevant in most development environments in the United States and overseas.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3060 International Development Project Analysis (3 Credits)***Typically offered not typically offered*

As real estate capital and services become increasingly globalized, it is important for practitioners to understand the planning and development process in an international context. Students who complete this course will acquire a broader understanding of the range of real estate strategies and methodologies used in developing complex, mixed-use projects in major cities around the world, and how to approach projects through analysis and design of a specific case study. Through the case study, located outside of the U.S., students will analyze real estate development within the context of regulatory, political, environmental, and financial issues, and produce a program of suggestions for the site. The course will also have a comparative component – highlighting both the clear differences and contextual nuances between the real estate development in process in the selected location and New York City. Students will visit the selected city at the beginning of the semester. Besides studying the site in detail in conjunction with the local developer, the visit will provide a broad context of the area, ensuring that students gain an understanding of its neighborhoods, infrastructure, and business culture through visits to comparable projects and meetings with government agencies, designers and planners, real estate practitioners, and advisory service providers. During subsequent sessions in New York, students will continue to analyze the project and gain insight from New York-based professionals on development issues and practices on major projects in New York. After completing this course, students will be able to identify the issues that must be considered in order to successfully plan and develop a large-scale, mixed-use project in any global environment.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3100 Professional Internship (0.5-3 Credits)***Typically offered not typically offered*

Professional practice and related academic analysis under a designated faculty member and supervision within a private firm or public agency. This course may be used for an internship or practical training. Internships shall be a minimum of 10 hours and maximum of 20 hours of work per week. Students can take this professional internship course a maximum of two times for credit toward program requirements.

**Grading:** GC SCPS Pass/Fail**Repeatable for additional credit:** No**DEVE1-GC 3135 Real Estate Data Analytics (3 Credits)**

Real estate has become a sophisticated industry that now relies on advanced data analysis to drive investment and other critical decisions. This course is designed to give students an understanding of the techniques of data analysis and quantitative methods used in the industry. Students will be exposed to hands-on projects using data from major providers in the industry. Applied statistics will be presented using the open-source R statistical computing environment, together with Jupyter notebooks, an increasingly popular presentation environment. Students will gain hands-on experience creating statistical models to drive informed decision making in real estate investment decisions.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3200 Global Cities: Europe, Middle East, Africa (1.5 Credits)**

This course belongs to the "Global Cities" series of courses offered by the NYU Schack Institute of Real Estate and focuses on the rapid growth of small and medium-sized global cities in Europe, the Middle East, Africa, Latin America, South Asia, East Asia, and Southeast Asia. As urbanization continues to reshape human settlement patterns, a new class of connected and global cities has emerged, offering an alternative to the gateway cities favored by the global commercial real estate industry. These cities are smaller and more numerous than the global cities of the 20th century. Increasingly, these small and medium-sized cities are driving local prosperity and providing significant opportunities for real estate development. Despite the enormous potential, they face unique challenges in meeting the needs of their growing populations and commercial real estate markets must respond accordingly.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3201 Global Cities: USA & Canada (1.5 Credits)**

This course belongs to the "Global Cities" series of courses offered by the NYU Schack Institute of Real Estate and focuses on the rapid growth of small and medium-sized global cities in the USA & Canada, Europe, the Middle East, Africa, Latin America, South Asia, East Asia, and Southeast Asia. As urbanization continues to reshape human settlement patterns, a new class of connected and global cities has emerged, offering an alternative to the gateway cities favored by the global commercial real estate industry. These cities are smaller and more numerous than the global cities of the 20th century. Increasingly, these cities are driving local prosperity and providing significant opportunities for real estate development. Despite the enormous potential, they face unique challenges in meeting the needs of their growing populations and commercial real estate markets must respond accordingly.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No**DEVE1-GC 3202 Global Cities: Latin America (1.5 Credits)**

This course belongs to the "Global Cities" series of courses offered by the NYU Schack Institute of Real Estate and focuses on the rapid growth of global cities in Europe, the Middle East, Africa, Latin America, South Asia, East Asia, and Southeast Asia. As urbanization continues to reshape human settlement patterns, a new class of connected and global cities has emerged, offering an alternative to the gateway cities favored by the global commercial real estate industry. Increasingly, these cities are driving local prosperity and providing significant opportunities for real estate development. Despite the enormous potential, they face unique challenges in meeting the needs of their growing populations and commercial real estate markets must respond accordingly.

**Grading:** GC SCPS Graded**Repeatable for additional credit:** No

**DEVE1-GC 3203 Global Cities: South Asia (1.5 Credits)**

This course belongs to the “Global Cities” series of courses offered by the NYU Schack Institute of Real Estate and focuses on the rapid growth of global cities in Europe, the Middle East, Africa, Latin America, South Asia, East Asia, and Southeast Asia. As urbanization continues to reshape human settlement patterns, a new class of connected and global cities has emerged, offering an alternative to the gateway cities favored by the global commercial real estate industry. Increasingly, these cities are driving local prosperity and providing significant opportunities for real estate development. Despite the enormous potential, they face unique challenges in meeting the needs of their growing populations and commercial real estate markets must respond accordingly.

**Grading:** GC SCPS Graded

**Repeatable for additional credit:** No

**DEVE1-GC 3204 Global Cities: East Asia (1.5 Credits)**

This course belongs to the “Global Cities” series of courses offered by the NYU Schack Institute of Real Estate and focuses on the rapid growth of global cities in Europe, the Middle East, Africa, Latin America, South Asia, East Asia, and Southeast Asia. As urbanization continues to reshape human settlement patterns, a new class of connected and global cities has emerged, offering an alternative to the gateway cities favored by the global commercial real estate industry. Increasingly, these cities are driving local prosperity and providing significant opportunities for real estate development. Despite the enormous potential, they face unique challenges in meeting the needs of their growing populations and commercial real estate markets must respond accordingly.

**Grading:** GC SCPS Graded

**Repeatable for additional credit:** No

**DEVE1-GC 3205 Global Cities: Southeast Asia (1.5 Credits)**

This course belongs to the “Global Cities” series of courses offered by the NYU Schack Institute of Real Estate and focuses on the rapid growth of global cities in Europe, the Middle East, Africa, Latin America, South Asia, East Asia, and Southeast Asia. As urbanization continues to reshape human settlement patterns, a new class of connected and global cities has emerged, offering an alternative to the gateway cities favored by the global commercial real estate industry. Increasingly, these cities are driving local prosperity and providing significant opportunities for real estate development. Despite the enormous potential, they face unique challenges in meeting the needs of their growing populations and commercial real estate markets must respond accordingly.

**Grading:** GC SCPS Graded

**Repeatable for additional credit:** No