

REAL ESTATE (REAL)

REAL 1002. Fundamentals of Real Estate Law. (3 Credits)

This course introduces the legal concepts, laws, regulations, and risks involved in the acquisition, development, financing, leasing, and sale of real property. It discusses forms of ownership and co-ownership, the real estate transaction process from contract to closing, private property rights, and governmental restrictions on private property. The effect of mortgages, liens, and other encumbrances on the quality of title are also weighed. Students are introduced to estates and interests, deeds, easements, covenants, transferable development rights, eminent domain, zoning ordinances, environmental laws, and the legal aspects of a variety of commonly used real estate contracts including listing agreements, letters of intent, options, purchase and sale agreements, mortgages, insurance, construction contracts, and leases. Negotiation strategies, ethical issues, and fiduciary duties are addressed throughout the course.

Prerequisites: ECON 1100 and ECON 1200 and ECON 2140.

REAL 1004. Principles of Real Estate Economics. (3 Credits)

This course discusses the economic reasons for the growth and decline of real estate markets, along with the economic basis for location decisions by residential and commercial owners and tenants. The course includes a comprehensive overview of real estate market analysis, from the macroeconomic perspective to sector-specific drivers and considerations. Building upon a discussion of the basic principles of urban economics, the course explores the correlations of real estate valuations to regional and national economies, as well as the impact on specific property types resulting from macroeconomic business and growth cycles, key policy decisions, and changing monetary conditions. The course also examines the economic structure of major metropolitan areas, the influence of local governments on urban economic growth, the impact of urban economic growth on supply and demand for specific property types, and the factors that cause certain regions to thrive while others decline. The course identifies key indicators for tracking economic and real estate performance, as well as useful data sources and techniques for analyzing and forecasting real estate demand and supply for specific property types in specific markets. Class discussions will include current economic and real estate events and their potential impacts on real estate markets.

Prerequisites: ECON 1100 and ECON 1200 and ECON 2140.

REAL 1006. Real Estate Accounting Essentials. (3 Credits)

This class introduces general financial accounting principles, concepts, and rules, as established by U.S. Generally Accepted Accounting Principles (GAAP) and the International Financial Reporting Standards (IFRS). The fundamentals of financial statement development and analysis, including balance sheets, income statements, cash flow statements, and statements of owners' equity are covered, in addition to cash versus accrual accounting and accrual accounting rules that are specific to real-estate entities, including property owners, developers, and managers. The tax implications of business entity selection are introduced, along with tax accounting for the development, operation, and sale of cash flow producing properties including like-kind tax-free exchanges. Key topics to be covered are lease abstracts, rent rolls, security deposits, vacancy and collection loss, miscellaneous income, effective gross income (EGI) annual reports, fixed and variable operating expense (OE), net operating income (NOI), variance analysis, financial audits, operating budgets, capital budgets, replacement reserves, depreciation, property taxes, and before-tax cash flow (BTCF) and after-tax cash flow (ATCF).

Prerequisites: ECON 1100 and ECON 1200 and ECON 2140.

REAL 1008. Principles of Real Estate Finance. (3 Credits)

This course offers students a comprehensive orientation to how residential and commercial properties are financed and analyzed. It covers the investment property income statement, income and expense analysis, time value of money concepts, discounted cash flow analysis, capitalization theory, forms of debt and equity finance, mortgage concepts and terminology, mortgage instruments, equity concepts, and investment analysis. The course also introduces students to the broader real estate capital markets, securitization, the sources and uses of real estate funds, components of a capital structure, and the role of government in real estate finance.

Prerequisites: ECON 1100 and ECON 1200 and ECON 2142.

REAL 1010. Principles of Real Estate Valuation and Feasibility. (4 Credits)

This course introduces the theory, principles, and techniques for conducting valuation and feasibility studies of real property. The course emphasizes the importance of market analysis in the valuation and development process. The course covers real property concepts and characteristics, influences on real estate values, types of value, economic principles, market area analysis, and highest and best use. Students learn the three approaches to value—the income capitalization, cost, and sales comparison approaches—to reach an opinion of value. After examining income capitalization methods and formulas, students learn how rates and multipliers are derived. The cost approach is explored, showing how the cost of constructing a reproduction of, or replacement for, an existing structure is estimated. Land and site valuation are also covered. Finally, the sales comparison approach is covered, including researching the market, verifying information, selecting units of comparison, conducting a comparative analysis, and adjusting findings. Students learn basic concepts and terminology of market analysis and marketability studies and how marketability studies provide vital information for the highest and best use decision.

Prerequisites: ECON 1100 and ECON 1200 and ECON 2140 and REAL 1002 and REAL 1004 and REAL 1006 and REAL 1008.

REAL 1020. Real Estate Development Principles and Practices. (4 Credits)

This course presents a step-by-step examination of the real estate development process from idea conception to project completion. Students are introduced to the phases, procedures, and complexities of developing and redeveloping various property types, including multifamily, office, and mixed-use real estate. Students study the principal stages of development, including preliminary planning and market analysis, feasibility studies, site selection and acquisition, deal structure, financing, permitting, entitlements, design, construction, marketing, and asset management. This course also examines trends including mixed-use projects, public and private partnerships, and transit-oriented development.

Prerequisites: ECON 1100 and ECON 1200 and ECON 2140 and REAL 1002 and REAL 1004 and REAL 1006 and REAL 1008.

REAL 2002. Real Estate Financial Modeling. (4 Credits)

This course provides students with a fundamental understanding of the essential Time Value of Money (TVM) concepts and calculations employed in common real estate financial models and investment analyses. Beginning with an introduction to the property income statement, the pro forma and essential Excel software keystrokes, the course progresses to financial modeling best practices and more sophisticated Excel software techniques. Students will learn to develop a practical financial model from a set of project assumptions and merge appropriate TVM principles with Excel functions, tools, formulas, and shortcuts to arrive at investment decisions. Students will prepare basic income and expense models and amortization schedules while progressing forward to direct capitalization and discounted cash flow (DCF) analyses.

Attribute: REE.

Prerequisites: ECON 1100 and ECON 1200 and ECON 2140 and REAL 1002 and REAL 1004 and REAL 1006 and REAL 1008.

REAL 2004. Real Estate Management. (3 Credits)

This course introduces students to the core competencies and specialized skills needed to professionally plan and manage residential multifamily buildings, commercial office buildings, and corporate workspace for real estate owners, businesses, and third-party management companies. Through the study of established management practices with real-world applications, this course introduces students to the world of property management, corporate real estate, and facility management. Students study the Management Plan, the Management Agreement, management organizational structures, ownership obligations, management responsibilities, management fees, operating procedures, repositioning for value creation, staffing, training, supervision, risk management and insurance, leadership, communication, and ethics.

Attribute: REE.

Prerequisites: ECON 1100 and ECON 1200 and ECON 2140 and REAL 1002 and REAL 1004 and REAL 1006 and REAL 1008.

REAL 2006. Global Real Estate Markets. (3 Credits)

This course introduces students to real estate markets and investment activity beyond the U.S. border. It develops a due diligence framework to undertake comparative analyses of international real estate transactions, investments, and development projects across borders and within specific markets. The course focuses on the macro-economy, financial and real estate capital markets, currency concerns, taxation, legal issues, land use policy, political activity, regulations and statutory requirements, and cross-cultural negotiations of various key markets. Current global topics will be used to anchor learning and be the basis for class discussions in this comparative analysis.

Attribute: REE.

Prerequisites: ECON 1100 and ECON 1200 and ECON 2140 and REAL 1002 and REAL 1004 and REAL 1006 and REAL 1008.

REAL 2008. Building Design and Construction. (4 Credits)

This course provides an overview of the design and construction process for residential and commercial real estate assets. Students gain an understanding of the construction project life cycle; the roles of the owner, architect, engineer, contractor, and project management representative; and the most commonly used construction methods and materials. Topics of study include project delivery methods, the phases of design, project teams and organizations, types of contracts, cost estimating, construction planning and scheduling, construction budgets, field supervision, community and public agency relations, risk management, insurance, safety, and sustainable building practices.

Attribute: REE.

Prerequisites: ECON 1100 and ECON 1200 and ECON 2140 and REAL 1002 and REAL 1004 and REAL 1006 and REAL 1008.

REAL 2010. Special Topics in Real Estate. (4 Credits)

These courses, which will be offered periodically, are designed to enhance the student's educational experience by supplementing the standard array of courses with topics that are very highly specialized. Areas of study will include real estate finance, investment, and development. In most cases, they will be of interest to those students who desire a more intense exposure to a particular aspect of real estate.

Attribute: REE.

Prerequisites: ECON 1100 and ECON 1200 and ECON 2140 and REAL 1002 and REAL 1004 and REAL 1006 and REAL 1008.

REAL 5002. Real Estate Finance. (3 Credits)

This course covers the principles of commercial real estate finance including valuation methodologies, income and expense analysis, derivation of capitalization rates, concepts of commercial leasing, forms of debt and equity, valuation of land and key principles of construction loan finance.

Attribute: CONM.

REAL 5004. Real Estate Accounting and Tax. (3 Credits)

This course covers accounting concepts, rules, regulations, and reporting requirements for income-producing properties; tax tools for financial statements and real estate investments; accounting principles and income tax analysis for decision-making; and accounting and tax implications of real estate ownership structures and real estate transactions.

Attribute: REAM.

REAL 5006. Real Estate Legal Concepts and Contracts. (3 Credits)

This course provides an overview of the typical, major legal agreements that are involved with every commercial real estate transaction. The course is broken into four segments: legal overview, purchase/sale agreements, leases, and financing agreements.

Attribute: REAM.

REAL 5008. Real Estate Economics and Market Analysis. (3 Credits)

This course discusses economic base analysis, macroeconomic factors influencing metropolitan areas and links connecting economic fundamentals to property market performance. Delineation of market and submarket areas will be stressed, along with the differences arising from specific property types including office, retail, industrial, housing, and hotels. The dynamics of cities will be studied, especially as they relate to property market performance.

Attribute: REAM.

REAL 5010. Real Estate Structures and Capital Markets. (3 Credits)

The course covers the structure and operation of public and private, debt and equity real estate capital markets and the means by which this capital is channeled into commercial real estate to finance local transactions. Key topics include capital sources, participants, risk and return, tranches, capital asset pricing model (CAPM), CMBS, REOCs and REITs.

REAL 5012. Real Estate Valuation and Investment Analysis. (3 Credits)

Students in this course evaluate a range of investment opportunities in commercial real estate from the perspective of the investor (equity) and the lender (debt). Students analyze investment assumptions and model cash flows using Excel. Valuation techniques utilized include income capitalization and discounted cash flow analysis. Students examine pricing, returns, investment horizon, hold vs. sell strategies, financial leverage, sizing debt based on lender parameters and the impacts of leverage on returns.

Prerequisites: REAL 6022 and REAL 5002 and REAL 5004 and REAL 5008.

REAL 5014. Negotiation in Real Estate. (1.5 Credits)

This course provides an introduction to negotiation along with a strong foundation in a number of key concepts, including the three major roles of the conflict specialist, theories of communication and conflict, approaches to negotiation and their limitations, private versus court-centered approaches to resolving conflict and psychological biases and barriers in addressing conflict. Students explore new roles for conflict specialists with an eye towards preparing themselves to engage in various negotiation scenarios that arise in the real estate industry.

Attribute: REAM.

REAL 5016. Ethical Issues in Real Estate. (1.5 Credits)

Students in this course study how ethics are considered from various points of view: historically, relationally and transactionally. In a series of different situations commonly occurring in the real estate industry, students consider the ethical issues present and then evaluate the adequacy of the real world responses to those issues.

REAL 5050. Construction Contracts, Claims, and Dispute Resolution. (1.5 Credits)

This course examines the essential elements of commonly used contracts, including the rights, duties, and obligations of the owner and contractor. It offers the legal knowledge to review, understand, and evaluate the terms and conditions of construction contracts to minimize the risk of project disruptions, claims, disputes, and litigation. This course also provides an overview of project delivery methods, the bidding process, contract formation, contract forms, contract conditions, general conditions, subcontracts, privity of contracts, riders, defaults and terminations, changed conditions, changes and extra work, payments, lien law, surety bonds, damages for delay, claims, and methods of dispute resolution. Discussions will include the riskier provisions, including the incorporation by reference clause, the contingent payment clause, the no damage for delay clause, cardinal changes, and terminations for cause and convenience.

REAL 5052. Construction Financial Management. (1.5 Credits)

The general objectives of this course are for students to gain a comprehensive understanding of the key factors of effective construction financial and cost control. Students will develop cost control and tracking methods to monitor and control project budgets for successful project outcomes. The course covers accounting systems and financial analysis; owner and subcontractor credit risk underwriting; project funding; project cash flow and financing metrics; critical path analysis as it pertains to cost; general conditions, insurance, and risk management; sales taxes; progress payment disbursement; forecasting and trends; and the use of associated reports. Students will gain practical knowledge of concepts of construction financial and cost control and apply this knowledge toward the development of a response to an unplanned event with the goal of minimizing its impact on the project.

Attribute: REAM.

REAL 5054. Construction Cost Estimating and Bidding Strategies. (1.5 Credits)

This course will expose students to the theory, processes, and practices to prepare construction cost estimates and final project bids. Students will begin with an understanding of key terminology and progress into core topics including pre-construction and detailed estimates; planning for the estimate, design, and constructability review; general conditions; predesign; conceptual and preliminary budgets; cost of labor; pricing of material; time/cost analysis design review; unit prices; lump-sum bids; direct and indirect costs; mark-up; overhead; profit; bonds; insurance; and internal and external management considerations. This course will proceed with discussions on the bidding process, the bid package, subcontractor bid comparisons, qualification, bid solicitation, bid leveling and notification, bid analysis, and final bid price. Case studies, problems, and exercises are used extensively.

Attribute: REAM.

REAL 5056. Construction Scheduling and Impact Analysis. (1.5 Credits)

This course will expose students to a variety of network-based scheduling principles and tools including advanced Critical Path Method (CPM) construction scheduling techniques and the Precedence Diagramming Method (PDM). The course will cover project resource allocation, resource leveling, schedule development, schedule updating, schedule impacts of date constraints, project time and cost trade-offs, activity duration estimating, work breakdown structures, and an overview of construction contract scheduling specifications. An introduction to other scheduling methodologies and the use of schedules in construction claims will be addressed.

Attribute: REAM.

REAL 5058. Pre-Construction Project Planning and Development. (3 Credits)

Pre-construction project planning and development efforts play a key role in the overall success of a project, providing an opportunity for discovery, risk assessment, and strategic planning. This early planning can have a significant impact on project outcomes and offer substantial time and cost savings. This course examines the essential planning and analyses performed prior to the construction phase of a project to determine project scope, schedule, and cost estimate. It offers the knowledge to define project objectives, determine feasibility, manage risks, and analyze schedule and cost impacts to ensure optimal project performance and customer satisfaction.

Attribute: REAM.

REAL 5060. Construction Project Monitoring, Controls and Execution. (3 Credits)

Pre-construction project planning and development efforts play a key role in the overall success of a project as they provide the opportunity for discovery, risk assessment, and strategic planning. This early planning can have a significant impact on project outcomes and offer substantial time and cost savings. This course examines the essential planning and analyses performed prior to the construction phase of a project to determine the project's scope, schedule, and cost estimate. It offers the knowledge to define project objectives, determine feasibility, manage risks, and analyze schedule and cost impacts to ensure optimal project performance and customer satisfaction.

Attribute: REAM.

REAL 5102. Real Estate Risk and Portfolio Management. (3 Credits)

This course discusses the theory and principles of investments and portfolio management. Students acquire a working knowledge of the risks associated with individual real estate investments, such as asset-specific underwriting, credit evaluation, and tenant credit risk and then explore advanced topics including portfolio selection, calculation of efficient sets, and portfolio performance evaluation for the holding entity.

Prerequisites: REAL 5002 and REAL 5004 and REAL 5006 and REAL 5008 and REAL 5010.

REAL 5104. The Real Estate Development Process. (3 Credits)

This course provides a practical analysis of the phases of the real estate development process including conceptualization, site acquisition, planning and design, construction, financing, leasing and marketing. Leadership, management and control of the development team are featured issues.

Attribute: CONM.

Prerequisites: REAL 5002 and REAL 5006.

REAL 5106. Real Estate Asset Management. (3 Credits)

Students learn how to develop an investment strategy and an actionable asset management plan based on that strategy for increasing the value of real estate assets under management on behalf of ownership. Students examine acquisitions, leasing, operations, budgets, capital expenditures, repositioning, refinancing, dispositions and distressed and foreclosure workouts using financial modeling, underwriting, risk analysis, and performance benchmarking concepts and tools. The decision-making process will be examined from the property, asset and portfolio management perspectives.

Attribute: REAM.

Prerequisites: REAL 5002 and REAL 5004 and REAL 5006 and REAL 5008.

REAL 5108. Real Estate Credit Analysis and Underwriting. (3 Credits)

Students learn how to underwrite and structure commercial real estate (CRE) loans for the acquisition, development and construction of income-producing properties. A combination of market, risk and financial analysis tools will be used to assess commercial investment properties and borrower credit worthiness, and to make prudent, defensible lending decisions.

Prerequisite: REAL 5002.

REAL 6001. Real Estate Financial Modeling. (1.5 Credits)

Students gain a comprehensive understanding of real estate financial modeling principles and practices to prepare models for income and expense presentation and analysis, direct capitalization, and discounted cash flow (DCF) analysis. Students develop the vocabulary and preliminary critical thinking skills needed to develop real estate financial models. The course will emphasize effective presentation of data and productivity.

Attributes: CONM, REAM, REFI.

REAL 6002. Real Estate Development Feasibility Study. (3 Credits)

This course examines the components of a real estate development feasibility study report. Students refine leadership, team and presentation skills to deliver a comprehensive and persuasive report on a currently available real estate project.

REAL 6003. Private Equity. (1.5 Credits)

In this course, students develop an understanding of the taxonomy of different real estate private equity strategies, including core, core plus, value-add, and opportunistic. Students learn how real estate funds are set up and managed, how to align the general partners' fees and incentives with the limited partners' interests, and exit strategies such as initial public offerings (IPOs), recapitalization, and secondary sales. The course examines the role of private equity real estate investments within a portfolio comprising various asset classes, with a focus on performance measurement, diversification gains, and risk measurement.

Attribute: REFI.

Prerequisite: REAL 5002.

REAL 6004. Adaptive Reuse and Sustainability. (1.5 Credits)

Utilizing sustainable principles and building practices, this comprehensive course challenges students to think critically about reusing existing building stock and maintaining historic structures. It encourages adaptive reuse by owners and developers entering the design review process. The goal is to help developers think critically about the opportunities presented by adaptive reuse.

Attributes: CONM, REAM, REDV.

REAL 6005. Commercial Mortgage-Backed Securities. (1.5 Credits)

In this course, students learn the history, structure, and key building blocks (commercial real estate loans) of commercial mortgage-backed securities (CMBS), as well as the transaction, ratings, and offering process. The participants, legal documents, and federal regulations that govern CMBS are also examined. Topics covered include the perspectives of originators, structurers, loan sellers, attorneys, ratings agencies, investors, servicers, and special servicers. The course will focus primarily on conduit deals, but will also introduce single-asset and single-borrower transactions and a securitized financing tool used primarily by commercial mortgage REITs: CLOs.

Attribute: REFI.

Prerequisites: REAL 5002 and REAL 5010.

REAL 6006. Development Project Leadership, Management and Communications. (1.5 Credits)

Gain essential leadership, management and reporting skills and strategies to effectively control the design and construction process, ensuring that every decision is made in the owner's best interest. Become acquainted with different types of reporting, and learn best practices and tools needed to improve performance, standards and timely project delivery.

Attributes: CONM, REAM, REDV.

REAL 6007. Real Estate Investment Trusts. (1.5 Credits)

Students gain an understanding of the history, operations, and mechanics of REITs, and how REITs are an important link between the real estate capital markets and the property markets. Topics covered include real estate space and asset markets, measurement and determinants of real estate prices, market trends, valuation methods, and returns and benchmarks.

Attribute: REFI.

Prerequisite: REAL 5010 (may be taken concurrently).

REAL 6008. Affordable Housing. (1.5 Credits)

In this course, students acquire an understanding of the history and current state of affordable housing in the US in general and NYC in particular. Students learn from a combination of formal lectures and interviews with past and current industry participants and leaders. The focus of the course is examine the multiple factors that must be addressed in the planning and execution of affordable housing projects.

Attributes: CONM, REAM, REDV.

REAL 6010. Development Project Finance. (1.5 Credits)

This course presents the principles of development project finance. Students acquire best practices for submitting a loan request to a lender for interim construction loan project financing, long-term permanent "take-out" financing, and mini-perm financing. Students will become familiar with the presentation of project pro forma, construction loan types, the requirements of a development team, the lender's credit criteria, the loan proposal, hard and soft cost budgets, valuation, project feasibility and documentation. This course includes discussion of privately and publicly funded infrastructure investment considerations.

Attributes: CONM, REDV.

REAL 6012. Global Real Estate Investment. (1.5 Credits)

This course provides a comparative and critical approach to undertaking international real estate transactions, investments and development projects by providing a framework for analyzing real estate investments across borders within specific markets.

REAL 6014. Land Use Law. (1.5 Credits)

Real estate development is profoundly impacted by land use law and environmental regulations. A successful developer must navigate through land use controls, federal, state and city environmental regulations, landmark and historic preservation restrictions and community concerns, in addition to building and fire codes and other safety regulations.

Attributes: CONM, REDV.

REAL 6016. Real Estate Entrepreneurship Business Planning. (1.5 Credits)

This course integrates the concepts, tools and practices of entrepreneurship. Students learn to be superior opportunity assessors and shapers, to understand the integration of people and process in entrepreneurship, to write, articulate and present a new venture execution plan, to understand the alternatives and trade-offs in financing, starting and operating a venture, and to gain a better understanding of their personal entrepreneurial capabilities.

Attribute: CONM.

REAL 6018. Real Estate Research and Technology. (1.5 Credits)

This course examines the growing and ever-changing technology ecosystem within the real estate industry (CRE tech or PropTech) and the various methods to perform essential market research using these platforms. Students gain an understanding of key areas of the real estate technology space, prominent business models, major contributors, growth initiatives and emerging markets.

Attribute: REFI.

REAL 6020. Internship. (1.5 Credits)

Internship.

Attribute: REDV.

REAL 6022. Special Topics in Real Estate. (1.5 Credits)

These courses, which will be offered periodically, are designed to enhance the student's educational experience by supplementing the standard array of courses with topics that are very highly specialized. Areas of study will include real estate finance, investment and development. In most cases, they will be of interest to those students who desire a more intense exposure to a particular field of study.

Attributes: CONM, REAM, REDV, REFI.

REAL 6050. Construction Technology. (1.5 Credits)

This course provides an overview of the latest methods, materials, and systems used in the construction of the core and shell and interior components of high-rise buildings. Topics include working drawings; specifications; site work; foundations; steel and reinforced concrete framing; glass, masonry, and exterior wall systems; drywall construction systems; light gauge metal framing; brick, stone, and miscellaneous masonry; fireproofing; doors, windows, glass, and glazing; finish ceilings; finish flooring; and acoustic materials.

Attribute: CONM.

REAL 6100. Applied Project. (3 Credits)

The Applied Project capstone course provides for a comprehensive application of core, flex core and elective course principles, concepts, and professional practice to real world real estate investment projects.

Prerequisites: REAL 6022 and REAL 5002 and REAL 5004 and REAL 5006 and REAL 5008 and REAL 5010 and REAL 5012 and REAL 5104 and REAL 6002.

REAL 6200. Research Project (Thesis). (3 Credits)

Students work with a qualified supervisor to conduct research, collect data, analyze, test their hypotheses and write up their findings. The finished thesis must demonstrate the student's ability to conduct comprehensive research and articulate original ideas and thought processes that make a practical contribution to the existing body of knowledge in the field of real estate.