Finance and Insurance (FINA)

FINA 1209. Personal Finance. (4 Hours)
Emphasizes the development of individually focused financial information and a comprehensive financial plan designed to enable the individual to manage his or her financial affairs. Integrates personal goals—such as buying a home, retirement, investing, and insurance needs—to help assure that the financial plan incorporates the major decision stages an individual faces.

FINA 1990. Elective. (1-4 Hours)
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

FINA 2201. Financial Management. (4 Hours)
Designed to develop the financial skills and logical thought processes necessary to understand and discuss financial policy decisions in a global economy. Specific objectives include developing an understanding of the time value of money; using financial statements in decision making; and understanding the nature of financial markets, the cost of capital, valuation of stocks and bonds, management of short-term assets, short-term and long-term financing, capital markets, and multinational financial management. Addresses the impact of legal, social, technological, and ethical considerations on efficient economic outcomes. Requires a financial calculator and provides an opportunity to develop computer spreadsheet skills.

Prerequisite(s): ACCT 1201 with a minimum grade of D- or ACCT 1209 with a minimum grade of D- or ACCT 1202 with a minimum grade of D-

FINA 2209. Financial Management. (4 Hours)
Does not count as credit for business majors. Counts as FINA 2201 for business minors only.

Prerequisite(s): ACCT 1201 with a minimum grade of D- or ACCT 1209 with a minimum grade of D- or ACCT 1202 with a minimum grade of D-

FINA 2720. Sustainability in the Business Environment. (4 Hours)
Examines a variety of environmental problems, including global warming, use and disposal of toxic substances, and depletion of natural resources such as water and petroleum. Many of these problems arise because these are resources that are available to all and so their overuse is an externality that is not included in manufacturing costs. Businesses have been involved in both identifying sustainability issues in their individual organizations and providing a variety of innovative solutions. Uses a combination of readings and case analyses to assesses how both government regulations—such as taxes, subsidies, building codes, prohibitions of use—and business solutions—including zero emissions, green design, producer take-back, life cycle assessment, and corporate environmental reporting—address these problems.

FINA 2730. Fintech and Financial Innovation. (4 Hours)
Offers a broad overview of the world of fintech, from the perspectives of both large financial institutions and small startups. Evaluates the financial services industry, forces at play that may lead to disruption in the industry, startups that have already succeeded in bringing about change, the technological tools that may be used to make changes, and how both startups and established firms might respond to the continued pace of change.

Prerequisite(s): FINA 2201 with a minimum grade of D- or FINA 2209 with a minimum grade of D- or FINA 2202 with a minimum grade of D- or IE 4512 with a minimum grade of D-

FINA 2990. Elective. (1-4 Hours)
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

FINA 3301. Corporate Finance. (4 Hours)
Designed to develop the skills needed to make and implement financial policy decisions in a global economy. Specific objectives include developing an understanding of financial analysis; company valuation; capital markets; cost of capital; capital asset pricing and risk management; short- and long-term financial policies; working capital management; multinational financial management; and special topics including lease financing, debt refunding, mergers and acquisitions, and bankruptcy and restructuring. Offers opportunities to consider many broader issues including the relevance of globalization; the world economy; technological advances; and legal, social, and ethical issues related to the practice of corporate finance. Stresses written and oral communication skills and teamwork. Uses cases and spreadsheets extensively.

Prerequisite(s): (FINA 2201 with a minimum grade of D- or FINA 2202 with a minimum grade of D- or FINA 2209 with a minimum grade of D- or IE 4512 with a minimum grade of D-)

FINA 3303. Investments. (4 Hours)
Focuses on investment management as the study of risk and return of financial securities and real assets. Students design and assess models that evaluate investments while recognizing the constraints of the real world. Explores domestic and international financial markets and the securities traded therein. Discusses techniques for valuation of financial assets. Analyzes qualitative concepts such as market efficiency, intrinsic value, and risk. Provides the ability to build unique valuation models to suit the particular investment alternative that students wish to scrutinize. Also stresses portfolio construction, management, and protection, as well as performance assessment. During the semester, students have an opportunity to create and manage a stock portfolio.

Prerequisite(s): FINA 2201 with a minimum grade of D- or FINA 2202 with a minimum grade of D- or FINA 2209 with a minimum grade of D- or IE 4512 with a minimum grade of D-

FINA 3305. Real Estate Principles. (4 Hours)
Presents a broad introduction to real estate. Introduces real estate theory, law, market analysis, and the fundamentals of real estate finance. Explores commercial real estate financing, property management, value creation strategies, and major historical events in property markets. Offers students an opportunity to develop the practical skills to evaluate personal and investment-oriented real estate decisions, understand the influences of macroeconomic factors, and consider urban development trends. No prior knowledge of real estate is necessary.

Prerequisite(s): FINA 2201 with a minimum grade of D- or FINA 2202 with a minimum grade of D- or FINA 2209 with a minimum grade of D- or IE 4512 with a minimum grade of D-

FINA 3401. Responsible Investing. (4 Hours)
Examines environmental, social, governance, and socially responsible investing. Focuses on responsible investing from the perspective of investors and asset managers. Reviews the history and current landscape using a quantitative approach by evaluating the potential trade-offs between returns and impact. Considers how to incorporate ESG factors into investment decisions and use data-driven approaches to assess various investment products to determine if they are meeting their stated goals.

Prerequisite(s): FINA 2201 with a minimum grade of D- or FINA 2202 with a minimum grade of D- or FINA 2209 with a minimum grade of D- or IE 4512 with a minimum grade of D-

FINA 3990. Elective. (1-4 Hours)
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

FINA 4101. Risk Arbitrage. (1 Hour)
Introduces risk arbitrage, a strategy that profits from price gaps during mergers and acquisitions. Explores how to analyze deals, estimate success odds, and build portfolios with applications in a high-level programming language such as Python. Offers students an opportunity to test real-world strategies and weigh risks vs. rewards in alternative investments.

Prerequisite(s): CS 2000 with a minimum grade of D- or CS 2100 with a minimum grade of D- or DS 2000 with a minimum grade of D- or FINA 4335 with a minimum grade of D- ; (FINA 3301 with a minimum grade of D- or FINA 3303 with a minimum grade of D-)

FINA 4102. Futures Market Trading Strategies. (1 Hour)
Introduces futures market trading strategies with applications in a high-level programming language such as Python. These trading strategies are an alternative approach to security selection and portfolio construction that offer investors returns uncorrelated to traditional stock and bond portfolios. Covers global macro trading, trend following, and carry. Includes other topics such as constructing trading strategies, exploring the effects of leverage, and incorporating strategies into a traditional portfolio.

Prerequisite(s): CS 2000 with a minimum grade of D- or CS 2100 with a minimum grade of D- or DS 2000 with a minimum grade of D- or FINA 4335 with a minimum grade of D- ; (FINA 3301 with a minimum grade of D- or FINA 3303 with a minimum grade of D-)

FINA 4103. Low-Volatility Equity Portfolios. (1 Hour)
Introduces low-volatility investing with applications in a high-level programming language such as Python. Low-volatility investing is an approach to security selection and portfolio construction that favors low-volatility securities and portfolios. Covers the capital asset pricing model, along with more current research, illustrating that low-volatility securities outperform their risk-adjusted benchmarks. Includes other topics such as identifying low-volatility securities, constructing low-volatility portfolios, and exploring the effects of leverage.

Prerequisite(s): CS 2000 with a minimum grade of D- or CS 2100 with a minimum grade of D- or DS 2500 with a minimum grade of D- or FINA 4335 with a minimum grade of D- ; (FINA 3301 with a minimum grade of D- or FINA 3303 with a minimum grade of D-)

FINA 4104. Risk Parity Investing. (1 Hour)
Introduces risk parity investing with applications in a high-level programming language such as Python. Risk parity is an asset allocation approach that considers the risk contribution from each asset and overall portfolio risk, which can lead to more stable portfolio returns over time. Exposes students to risk parity, with and without reallocation and leverage, and offers them an opportunity to deepen their understanding of diversification, modern portfolio theory, and asset allocation.

Prerequisite(s): CS 2000 with a minimum grade of D- or CS 2100 with a minimum grade of D- or DS 2000 with a minimum grade of D- or FINA 4335 with a minimum grade of D- ; (FINA 3301 with a minimum grade of D- or FINA 3303 with a minimum grade of D-)

FINA 4219. Portfolio Management. (4 Hours)
Studies the characteristics and formation of optimal portfolios by investing risky assets and fixed incomes. The discussion of theories and models is associated with the application for portfolio decision making in practice. Offers students an opportunity to obtain the ability to establish appropriate client investment objectives, gather and assess information necessary for determining the investment style and the selection of the securities and, evaluate the performance of a portfolio. Portfolio management is a critical functionality that is provided by financial institutions such as investment banks, insurance companies, and funds. This full-semester course is designed to introduce industry-grade portfolio analysis, exploring all aspects of investment evaluation from the perspective of institutional and individual investors.

Prerequisite(s): FINA 3303 with a minimum grade of D-

FINA 4220. Behavioral Finance. (4 Hours)
Designed to revisit neoclassical economic theory based on rational market participants, then introduce students to the theory and evidence regarding psychological heuristics and biases that are inconsistent with the underlying assumptions of these classical models. Behavioral biases can severely influence financial decision making in the investment and the corporate environments, and it is important for students to understand how and why these biases occur. The course material, born out of the fields of cognitive psychology and behavioral economics, is designed to help students understand their own biases in making personal financial decisions.

Prerequisite(s): FINA 3301 with a minimum grade of D- or FINA 3303 with a minimum grade of D-

FINA 4310. Working Capital Management. (4 Hours)
Examines strategies and analytical approaches to managing current assets and current liabilities. Explores corporate cash management under changing money market conditions. Discusses the use of interest rate futures and working capital management in a multinational context. Provides a summary overview of entrepreneurial finance, with a focus on small businesses, corporate ventures, and intrapreneurship. Applies knowledge of corporate finance in the context of starting, acquiring, managing, and divesting a business or a business unit within a corporation. Topics include analyzing the financial needs of new ventures, exploring sources of financing, managing decline, determining valuation, and reviewing exit strategies.

Prerequisite(s): FINA 2201 with a minimum grade of D- or FINA 2202 with a minimum grade of D- or FINA 2209 with a minimum grade of D- or IE 4512 with a minimum grade of D-

FINA 4320. International Financial Management. (4 Hours)
Introduces international financial markets including balance of payments, history of the international monetary system, exchange-rate determination, foreign-exchange-exposure hedging strategies, and international capital markets. Examines how the financial strategies and policies of multinational corporations differ from domestic corporations and how financial management is utilized in an international setting to achieve corporate goals.

Prerequisite(s): FINA 2201 with a minimum grade of D- or FINA 2202 with a minimum grade of D- or FINA 2209 with a minimum grade of D- or IE 4512 with a minimum grade of D-

FINA 4330. Emerging Financial Markets. (4 Hours)
Presents essential theoretical background and practical knowledge regarding investments in emerging financial markets. Covers how emerging markets are developed and how securities are valued and traded. Explores the major risk factors associated with investing in these markets as long as the basic institutional policy issues affect emerging markets. Finally, offers a practical approach to investing in emerging financial markets (including financial securities selections, analysis, and portfolio diversification).

Prerequisite(s): FINA 3301 with a minimum grade of D- or FINA 3303 with a minimum grade of D-

FINA 4335. Computational Methods and Their Applications in Finance. (4 Hours)
Introduces Python and its data-oriented library ecosystem (NumPy, Pandas, Matplotlib, Statsmodels, SciPy, etc.). Python is one of the most widely used open-source, cross-platform programming languages. Focuses on developing a strong foundation for working with financial data in Python and implementing various financial models.

Prerequisite(s): FINA 3301 (may be taken concurrently) with a minimum grade of D- or FINA 3303 (may be taken concurrently) with a minimum grade of D-

FINA 4340. Blockchain Applications in Finance. (4 Hours)
Introduces the fundamental concepts and an overview of the blockchain and cryptocurrency space. Offers a background in fundamental concepts in blockchain technology and functionality. Explores the basics of how blockchains record and verify information, including the related definitions and terminology. Provides an in-depth overview of blockchain applications in finance. Concludes by examining the legal and regulatory framework, along with potential risks and hurdles faced by blockchain technologies.

Prerequisite(s): ((CS 2000 with a minimum grade of D- or CS 2100 with a minimum grade of D- or CS 2500 with a minimum grade of D- or DS 2000 with a minimum grade of D- or DS 2500 with a minimum grade of D- or EECE 2560 with a minimum grade of D-); (FINA 3301 with a minimum grade of D- or FINA 3303 with a minimum grade of D-)) or (FINA 4335 with a minimum grade of D- or FINA 4380 with a minimum grade of D-)

FINA 4350. Applied Financial Econometrics and Data Modeling. (4 Hours)
Examines how to understand and analyze data using a set of analytical tools in financial econometrics. Emphasizes time-series financial data and financial modeling. The course uses programming languages, such as Python, that are standard in fintech applications.

Prerequisite(s): ((CS 2000 with a minimum grade of D- or CS 2100 with a minimum grade of D- or CS 2500 with a minimum grade of D- or DS 2500 with a minimum grade of D- or EECE 2560 with a minimum grade of D- or DS 2000 with a minimum grade of D-); (FINA 3301 with a minimum grade of D- or FINA 3303 with a minimum grade of D-)) or (FINA 4335 with a minimum grade of D- or FINA 4380 with a minimum grade of D-)

FINA 4370. Financial Modeling. (4 Hours)
Designed to develop students' quantitative financial modeling skills and techniques using the Excel spreadsheet. Through learning how to use numerical examples and business cases, students study corporate valuation, weighted average cost of capital (WACC), pro forma statement modeling, portfolio models, and Monte Carlo simulation methods, etc. Seeks to cultivate students' ability to make assumptions, deal with imperfect information, and real-world data issues. Offers students an opportunity to apply theoretical knowledge in advanced corporate finance, asset pricing, and option pricing in a real-world context. This course is highly quantitative in nature; while it does not derive complicated mathematical formulas, familiarity with concepts such as the capital asset pricing model (CAPM), WACC, portfolio theory, and pro forma financial statements is expected.

Prerequisite(s): FINA 3301 with a minimum grade of D- or FINA 3303 with a minimum grade of D-

FINA 4390. Machine Learning in Finance. (4 Hours)
Offers students an opportunity to prepare for rapid changes in the financial services world due to technological innovations and to understand how ML and AI tools are relevant in the financial services industry; to learn the basics of these tools, including machine learning; and to analyze the ethical considerations in the use of these tools in financial services. Seeks to train students to develop data analytics solutions using machine learning and deep learning models, allowing them to answer analytical questions that are encountered in the finance space. Working knowledge of Microsoft Excel or other spreadsheet programs is strongly recommended.

Prerequisite(s): ((CS 2000 with a minimum grade of D- or CS 2100 with a minimum grade of D- or CS 2500 with a minimum grade of D- or DS 2500 with a minimum grade of D- or EECE 2560 with a minimum grade of D- or DS 2000 with a minimum grade of D-); (FINA 3301 with a minimum grade of D- or FINA 3303 with a minimum grade of D-)) or (FINA 4335 with a minimum grade of D- or FINA 4380 with a minimum grade of D-)

FINA 4410. Valuation and Value Creation. (4 Hours)
Explores recent developments in financial management and financial analysis through the use of modern finance theory to make capital allocation decisions that lead to long-run value maximization for the corporation. Focuses on applications and financial model building. Examines risk analysis by building spreadsheet models for valuation and risk-analysis applications. Utilizes valuation analysis models to merge financial, corporate, and business strategies to measure and manage corporate value. Develops an understanding of the mechanics of the valuation process, along with an understanding of the drivers of value and development of strategies for value creation. Topics covered are relevant to value consultants, corporate managers, and securities analysts.

Prerequisite(s): FINA 2201 with a minimum grade of D- or FINA 2202 with a minimum grade of D- or FINA 2209 with a minimum grade of D- or IE 4512 with a minimum grade of D-

FINA 4412. Personal Financial Planning. (4 Hours)
Emphasizes the development of personal financial management knowledge by applying the techniques and perspectives of financial planning professionals. Builds upon and applies skills gained in FINA 2201 to personal finance decisions such as retirement planning, home mortgages, and overall risk management. Offers students an opportunity to develop their own financial plan and understand how that plan will change as they age and their life situation changes. Note that while this course is not designed to prepare students to take the Certified Financial Planner exam, many of the topics, such as retirement planning, investment and securities planning, and estate planning, are among those discussed.

Prerequisite(s): FINA 2201 with a minimum grade of D- or FINA 2202 with a minimum grade of D- or FINA 2209 with a minimum grade of D- or IE 4512 with a minimum grade of D-

FINA 4420. Mergers and Acquisitions. (4 Hours)
Offers a practical, planning-based approach to managing the mergers and acquisitions (M&A) process. Analyzes how M&As create or destroy value; commonly used takeover tactics and defenses; M&A valuation techniques; alternative deal structures; and the financial, strategic, legal, and regulatory aspects of M&As. The first section covers how and when to apply the appropriate tools and skills to successfully complete a transaction. The second section offers students an opportunity to apply what has been learned to solve real-world business problems. Discusses all major elements of the acquisition process in the context of a logical process.

Prerequisite(s): FINA 3301 with a minimum grade of D- or FINA 3303 with a minimum grade of D-

FINA 4460. Algorithmic and Robo-Trading. (4 Hours)
Covers the basis and implementation of trading strategies commonly used by investment professionals, such as fundamental analysis, factor investing, covariance models, and high-frequency trading. Today's asset management industry increasingly incorporates the delivery and execution of investment strategies through automated algorithms. Offers students an opportunity to understand the advantages and limitations of systematic trading and execution strategies. Students apply and modify such strategies and evaluate their performance using real-time data and incorporate aspects of Big Data in their quantitative strategies. Familiarity with a programming language such as Python is expected.

Prerequisite(s): ((FINA 3301 with a minimum grade of D- or FINA 3303 with a minimum grade of D-); (DS 2000 with a minimum grade of D- ; DS 2001 with a minimum grade of D-)) or (FINA 4335 with a minimum grade of D- or FINA 4380 with a minimum grade of D-)

FINA 4512. Financial Risk Management. (4 Hours)
Explores the concepts of financial futures, options on financial futures, and listed options markets as developed to help corporations and financial institutions manage financial risk. Covers financial derivatives and standard hedging techniques first, followed by a study of market risk and strategies in managing market risk.

Prerequisite(s): FINA 3303 with a minimum grade of D- or FINA 3301 with a minimum grade of D-

FINA 4514. Investment Banking. (4 Hours)
Examines the investment banking business. Investment bankers are one of the most important conduits through which funds flow from savers to corporations needing to invest in plant and equipment. Offers an opportunity to examine the major functions of large investment banks in regard to their investment banking, market making, and asset management businesses; to determine the financing needs of domestic and international corporations, not-for-profit organizations, and government entities by using concepts learned in earlier courses; and to learn to link these financing needs with products that are available in the capital markets, usually through the investment banking houses.

Prerequisite(s): FINA 3303 with a minimum grade of D- or FINA 3301 with a minimum grade of D-

FINA 4516. Real Estate Finance. (4 Hours)
Surveys the field of real estate including principles of real estate law, transactions brokerage, management, development, valuation, taxation, finance, and investment. Provides a framework of real estate finance and investment, in both theory and practice. Examines all aspects of real estate financing including the primary and secondary mortgage markets, real estate financial institutions, regulations, and mortgage-backed securities. Analyzes the return, risk, and various strategies in real estate investments with financial methods and techniques. Uses case discussions, spreadsheet analysis, and investment projects to make learning effective.

Prerequisite(s): FINA 3303 with a minimum grade of D- or FINA 3301 with a minimum grade of D-

FINA 4524. Credit Analysis. (4 Hours)
Explores all aspects of credit evaluation from the perspective of banks and other institutions. Introduces industry-grade credit analysis. Credit analysis is used by all manner of banks and other institutions, such as insurance companies, hedge funds, private equity groups, and even elements of local, state, and federal governments, to evaluate clients and potential borrowers who need loans and other structured debt products.

Prerequisite(s): FINA 3301 with a minimum grade of D- or FINA 3303 with a minimum grade of D-

FINA 4526. Core Topics in Alternative Investments. (4 Hours)
Covers alternative investments, including real assets such as real estate and real estate investment trusts, hedge funds, commodities, private equity, and structured products. This course is highly quantitative and focuses on methods for understanding risk, return, and benchmarking of these investments. Offers students an opportunity to obtain a deeper understanding of each of these asset types.

Prerequisite(s): FINA 3303 with a minimum grade of D- or FINA 3301 with a minimum grade of D-

FINA 4602. Turnaround Management. (4 Hours)
Examines strategies for identifying companies likely to fail and selecting and implementing remedial actions. Topics include business turnarounds, troubled companies, workouts, bankruptcies, and liquidations, using case studies and readings. Students evaluate a turnaround plan.

Prerequisite(s): FINA 2201 with a minimum grade of D- or FINA 2202 with a minimum grade of D- or FINA 2209 with a minimum grade of D- or IE 4512 with a minimum grade of D-

FINA 4604. Fixed-Income Securities. (4 Hours)
Exposes students to the theory, application, and evidence concerning highly sensitive interest rate products. Explores recent developments in pension fund management, asset/liability management, duration matching, “gap” management, and other important issues confronting domestic and international financial and corporate management. Offers students the opportunity to learn how to customize a risk management program.

Prerequisite(s): FINA 3303 with a minimum grade of D- or FINA 3301 with a minimum grade of D-

FINA 4605. Fintech Experiential Project. (4 Hours)
Offers students an opportunity to integrate the skills developed through their previous fintech coursework to propose, design, and implement a technology solution, either individually or in teams, to address a business problem. Either students or industry partners identify and define the business problem. The main objective of this experiential course is to develop and enhance students’ problem-solving and hands-on skills, leading to a deliverable project that includes proof of concept, a prototype, and/or a final paper/presentation that demonstrates a deep understanding of the subject. Students formally present their project to the faculty member and/or industry partner with whom they are collaborating. Registration is contingent on a research proposal and approval by one of the supervising instructors.

Prerequisite(s): FINA 4340 with a minimum grade of D- or FINA 4350 with a minimum grade of D- or FINA 4390 with a minimum grade of D-

FINA 4610. Entrepreneurial Finance and Private Equity. (4 Hours)
Covers qualitative and quantitative aspects of entrepreneurial finance, such as venture capital and angel financing. Also covers private equity (i.e., buyout/leveraged-buyout firms), but in less detail. Introduces valuation in entrepreneurial finance, including valuation of startups, using real options to value innovation-intensive firms, valuation in staged financing, etc. Casework emphasizes the practical aspects of qualitative and quantitative issues related to venture capital financing, entrepreneurship, and innovation from the perspective of the financier and the startup firm. Discusses issues related to the venture capital industry, such as the limited partnership structure, term-sheets and contracts, exit of portfolio firms, and international investments. Requires a working knowledge of Excel or other spreadsheet programs.

Prerequisite(s): FINA 2201 with a minimum grade of D- or FINA 2202 with a minimum grade of D- or FINA 2209 with a minimum grade of D- or IE 4512 with a minimum grade of D-

FINA 4970. Junior/Senior Honors Project 1. (4 Hours)
Focuses on in-depth project in which a student conducts research or produces a product related to the student’s major field. Combined with Junior/Senior Project 2 or college-defined equivalent for 8 credit honors project. May be repeated without limit.

FINA 4983. Special Topics in Finance. (4 Hours)
Examines areas of current interest and special topics in finance. Employs a mix of lectures, cases, and projects. Topics depend on the instructor. May be repeated up to two times.

Prerequisite(s): FINA 3301 with a minimum grade of D- or FINA 3303 with a minimum grade of D-

FINA 4990. Elective. (1-4 Hours)
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

FINA 4992. Directed Study. (1-4 Hours)
Offers independent work under the direction of faculty members of the department on a chosen topic. Course content depends on instructor. May be repeated up to three times for a maximum of 8 semester hours.

FINA 6200. Value Creation through Financial Decision Making. (3 Hours)
Highlights the role of financial management as a source of value creation in a competitive global environment characterized by rapid technological, personal, and market changes. Offers students an opportunity to develop tools and techniques of financial analysis and valuation to support financial decision making. Presents future managers with actual business problems to learn to apply the tools of financial analysis to strategic decisions faced by the firm, such as capital budgeting and capital structure.

Prerequisite(s): ACCT 6201 (may be taken concurrently) with a minimum grade of C- ; MGSC 6200 with a minimum grade of C-

FINA 6202. Analysis of Financial Institutions and Markets. (3 Hours)
Introduces the domestic and international financial system and the institutions within it. Develops data and quantitative analysis tools utilized for economic and financial modeling and analysis. Emphasis is on regression analysis and its application, including how to build and interpret statistical models. Topics include the major types of financial institutions that operate within the global economy and the financial instruments employed by them; how exchange rates, interests rates, and security prices are determined and how they affect the global economy; and how governments and central banks impact economic and financial conditions.

FINA 6203. Investment Analysis. (3 Hours)
Familiarizes students with domestic and international financial markets and the securities traded therein. Discusses a variety of techniques for valuation of financial assets and relies heavily on quantitative methods. Critically analyzes such qualitative concepts as market efficiency, intrinsic value, and risk. The contents of this course, descriptive, theoretical, and applied, should provide students with the ability to build unique valuation models to suit the particular investment alternative they wish to scrutinize. Also provides students with an understanding of how investment theory and investment practice relate.

Prerequisite(s): FINA 6200 with a minimum grade of C- or FINA 6201 with a minimum grade of C- or FINA 6208 with a minimum grade of C- or (FINA 6318 with a minimum grade of C- ; FINA 6320 (may be taken concurrently) with a minimum grade of C-)

FINA 6204. International Financial Management. (3 Hours)
Develops specific concepts, policies, and techniques for the financial management of the multinational firm. Topics include operation of the foreign exchange markets, foreign exchange risk management, sources and instruments of international financing, foreign direct investment and the management of political risk, multinational capital budgeting, and financing control systems for the multinational firm.

Prerequisite(s): FINA 6200 with a minimum grade of C- or FINA 6201 with a minimum grade of C- or FINA 6203 with a minimum grade of C- or FINA 6208 with a minimum grade of C- or (FINA 6318 with a minimum grade of C- ; FINA 6320 (may be taken concurrently) with a minimum grade of C-)

FINA 6205. Financial Strategy. (3 Hours)
Develops financial, analytical, and communication skills necessary to develop and implement a financial strategy consistent with firm value creation in a dynamic environment. Stresses the impact of ethical and legal considerations, global markets, and technological innovation on efficient economic outcomes. Emphasizes written and oral communication skills. Upon completion of this course, students should be able to identify and analyze a firm’s strategic opportunities and propose a suitable financial strategy that is consistent with firm value creation.

Prerequisite(s): FINA 6200 with a minimum grade of C- or FINA 6201 with a minimum grade of C- or FINA 6208 with a minimum grade of C- or FINA 6331 with a minimum grade of C- or (FINA 6318 with a minimum grade of C- ; FINA 6320 (may be taken concurrently) with a minimum grade of C-)

FINA 6206. Finance Seminar. (3 Hours)
Structures discussion of current topics in the finance literature. Students read and present the works of leading researchers. Topics are broad and may cover various areas of corporate finance, investments, and institutions. Students also complete an original project emphasizing current methodologies of analysis.

Prerequisite(s): FINA 6203 with a minimum grade of C-

FINA 6207. Financial Modeling. (3 Hours)
Introduces financial modeling applications in the fields of risk management, statistics applied to finance, investments, and portfolio management. Financial modeling is used for performing financial analysis facilitating business decision making in virtually any business. Excel is the most widely used electronic spreadsheet program in the world. Offers students an opportunity to develop strong Excel proficiency needed to effectively and efficiently understand and implement the quantitative aspects of financial topics covered in the various financial courses taught in the MBA and MSF programs and to learn how to use a variety of spreadsheet tools and techniques to enhance their overall analytical skill set.

Prerequisite(s): FINA 6200 with a minimum grade of C- or FINA 6201 with a minimum grade of C- or FINA 6208 with a minimum grade of C- or FINA 6331 with a minimum grade of C- or (FINA 6318 with a minimum grade of C- ; FINA 6320 with a minimum grade of C-)

FINA 6211. Financial Risk Management. (3 Hours)
Provides an overview of all of the hedging markets and hedging instruments. Explores specific hedging use of options, forwards, futures, swaps, and options on futures. Focuses on advanced financial risk management of interest rates, currency rates, equity returns, and fixed income returns. Students use readings and case problems to study when and how to use hedging instruments to alter a portfolio’s risk exposure.

Prerequisite(s): FINA 6203 (may be taken concurrently) with a minimum grade of C-

FINA 6212. Fixed-Income Securities and Risk. (3 Hours)
Exposes students to theory, applications, and evidence concerning highly sensitive interest rate products. Discusses recent developments in pension fund management, asset/liability management, duration matching, "gap" management, concurrent interest rate and exchange rate management, and other important issues now confronting domestic and international financial and corporate management. Studies how to customize a risk management program.

Prerequisite(s): FINA 6203 (may be taken concurrently) with a minimum grade of C-

FINA 6213. Investment Banking. (3 Hours)
Discusses policy, strategy, and administration of financial services firms. Topics include issuance of securities, the service function within financial services, pricing a negotiated issue of common stock or competitive bid issue, and meeting capital requirements of a securities firm.

Prerequisite(s): FINA 6200 with a minimum grade of C- or FINA 6201 with a minimum grade of C- or FINA 6208 with a minimum grade of C- or FINA 6331 with a minimum grade of C- or (FINA 6318 with a minimum grade of C- ; FINA 6320 (may be taken concurrently) with a minimum grade of C-)

FINA 6214. Mergers and Acquisitions. (3 Hours)
Explores the environments that have recently given rise to a large number of corporate mergers and the business factors underlying these corporate combinations. Examines the financial, managerial, accounting, and legal factors affecting mergers. Focuses on three aspects of the merger and acquisition process: the strategic decision to acquire, the valuation decision of how much to pay, and the financing decision on how to fund the acquisition.

Prerequisite(s): FINA 6200 with a minimum grade of C- or FINA 6201 with a minimum grade of C- or FINA 6208 with a minimum grade of C- or FINA 6331 with a minimum grade of C- or (FINA 6318 with a minimum grade of C- ; FINA 6320 (may be taken concurrently) with a minimum grade of C-)

FINA 6215. Business Turnarounds. (3 Hours)
Concentrates on the diagnosis, prescription, and implementation of actions pertinent to business turnarounds, troubled companies, workouts, bankruptcies, and liquidations. Case studies and readings guide the student through the maze of financial, ethical, legal, general business, and strategic aspects of turnarounds, culminating in the student evaluating and developing a turnaround plan.

Prerequisite(s): FINA 6200 with a minimum grade of C- or FINA 6201 with a minimum grade of C- or FINA 6208 with a minimum grade of C- or FINA 6331 with a minimum grade of C- or (FINA 6318 with a minimum grade of C- ; FINA 6320 (may be taken concurrently) with a minimum grade of C-)

FINA 6216. Valuation and Value Creation. (3 Hours)
Focuses on cash-flow oriented models of the valuation of the firm. Topics include enterprise value, free cash flow, economic value added, and risk/reward analysis. Explores recent developments in financial management and financial analysis through the use of modern finance theory to make capital allocation decisions that lead to long-run value maximization for the corporation. Focuses on applications and financial model building, risk analysis for valuation applications, and business strategies to measure and manage corporate value and value creation. Topics are relevant to value consultants, corporate managers, and securities analysts.

Prerequisite(s): FINA 6200 with a minimum grade of C- or FINA 6201 with a minimum grade of C- or FINA 6208 with a minimum grade of C- or FINA 6331 with a minimum grade of C- or (FINA 6318 with a minimum grade of C- ; FINA 6320 (may be taken concurrently) with a minimum grade of C-)

FINA 6217. Real Estate Finance and Investment. (3 Hours)
Provides students with a comprehensive understanding of real estate finance. Emphasizes factors affecting real estate investment. Topics include valuation (appraisal), market analysis, development, taxation, ownership types, short-term financing, mortgage markets, and investment strategies. Designed for students interested in a general overview of real estate finance, as well as those intending to pursue a career in the real-estate field.

Prerequisite(s): FINA 6200 with a minimum grade of C- or FINA 6201 with a minimum grade of C- or FINA 6208 with a minimum grade of C- or (FINA 6318 with a minimum grade of C- ; FINA 6320 (may be taken concurrently) with a minimum grade of C-) or FINA 6332 with a minimum grade of C-

FINA 6219. Portfolio Management. (3 Hours)
Develops portfolio construction, revision, and performance measurement. Highlights portfolio construction in an efficient capital market. Topics include risk-return analysis, the effects of diversification on risk reduction, and the costs of inflation, taxes, and transaction costs on fixed income and equity security portfolios. Examines financial models of capital asset pricing as the basis for the analysis of portfolios from the institutional investor's viewpoint.

Prerequisite(s): FINA 6203 (may be taken concurrently) with a minimum grade of C-

FINA 6220. Healthcare Finance. (3 Hours)
Implements financial management and economic principles to analyze real-world healthcare issues. Emphasizes and encourages problem solving and creative thinking through the use of texts, cases, and models of the healthcare industry. Students are exposed to financial, managerial, and risk management strategies unique to the healthcare industry.

Prerequisite(s): FINA 6200 with a minimum grade of C- or FINA 6201 with a minimum grade of C- or FINA 6208 with a minimum grade of C- or (FINA 6318 with a minimum grade of C- ; FINA 6320 (may be taken concurrently) with a minimum grade of C-)

FINA 6234. Evaluating and Managing Financial Investments. (3 Hours)
Introduces the menu of financial assets available to investors and how these assets can be combined into optimal portfolios to meet different objectives. Presents an overview of the primary asset classes, the markets in which these assets trade, and the investment companies that manage portfolios. Focuses on quantifying the rates of return and levels of risk associated with individual investments and diversified portfolios. Offers students an opportunity to develop models of asset valuation to calculate equilibrium prices for debt and equity securities. Studies how actively managed portfolios can exploit mispricing and how investors should evaluate the performance of a managed portfolio.

FINA 6235. Exploring and Understanding Value Creation, Maintenance, and Destruction. (3 Hours)
Examines enhanced shareholder value as the primary goal of business and how the best managers attain that goal within ethical, legal, and regulatory guidelines. Analyzes the importance of equipping managers with a comprehensive understanding of the financial landscape, encompassing the creation and utilization of reliable information and the application of robust analytical tools. Focuses on fostering critical thinking abilities. Explores value, value creation, sustainability, and measurement by examining value investing, financial analysis and forecasting, cost of capital estimation, capital budgeting, resource allocation, capital structure, and value realization via public offerings, mergers, and acquisitions. Investigates some alternative and perhaps controversial methods used to create value. Studies interesting examples of value destruction.

FINA 6236. Risk Management with Technology. (3 Hours)
Introduces and explores financial risk management using derivative instruments, which are contracts whose values derive from prices of underlying assets and goods such as equities, currencies, debt, and commodities. Focuses on the valuation and application of the principal derivative building blocks, including fixed-income securities, futures and forward contracts, options, and structured financial products. Covers market structure and how these products are specifically used by corporations and financial institutions for controlling financial market risks. Explores current global developments and new product innovations. Introduces some state-of-the-art technology such as large language models in financial markets.

FINA 6237. Fintech, Financial Innovation, and Blockchain. (3 Hours)
Offers a broad overview of the world of fintech from the perspectives of both large financial institutions and small startups. Explores the dynamic intersections of finance and technology with a deep understanding of financial innovation, fintech trends, and blockchain technology. Presents a comprehensive understanding of regulatory challenges, risks, and opportunities within the fintech landscape. Focuses on cutting-edge concepts that are shaping the financial industry. Analyzes the impact of blockchain technology, understanding its role in creating secure, transparent, and immutable financial ecosystems.

Prerequisite(s): FINA 6203 with a minimum grade of C-

FINA 6238. Risk Parity Investing. (1 Hour)
Introduces risk parity investing with applications in a high-level programming language such as Python. Risk parity is an asset allocation approach that considers the risk contribution from each asset and overall portfolio risk, which can lead to more stable portfolio returns over time. Exposes students to risk parity, with and without reallocation and leverage, and offers them an opportunity to deepen their understanding of diversification, modern portfolio theory, and asset allocation.

Prerequisite(s): FINA 6203 with a minimum grade of C- ; FINA 6333 with a minimum grade of C-

FINA 6239. Low-Volatility Equity Portfolios. (1 Hour)
Introduces low-volatility investing with applications in a high-level programming language. Low-volatility investing is an approach to security selection and portfolio construction that favors low-volatility securities and portfolios. Covers the capital asset pricing model, along with more current research, illustrating that low-volatility securities outperform their risk-adjusted benchmarks. Includes other topics such as identifying low-volatility securities, constructing low-volatility portfolios, and exploring the effects of leverage.

Prerequisite(s): FINA 6203 with a minimum grade of C- ; FINA 6333 with a minimum grade of C-

FINA 6240. Portfolio Construction and Management. (1 Hour)
Introduces portfolio construction, management, and reporting with applications in a high-level programming language such as Python, focusing on low-volatility and risk parity investing styles. Students complete two miniprojects that involve position sizing, portfolio rebalancing, stress testing, risk limits, and portfolio reporting.

Prerequisite(s): FINA 6203 with a minimum grade of C- ; FINA 6333 with a minimum grade of C-

FINA 6284. Financing Innovation and Growth. (3 Hours)
Offers an immersion in corporate finance with a specific focus on the financing of innovation and growth at firms. Topics include analyzing and applying finance from the perspective of intrapreneurship as well as entrepreneurship.

FINA 6292. Advanced Topics in Finance. (3 Hours)
Examines current, specialized, and advanced topics in the areas of corporate finance, investments, risk management, valuation, private equity, venture capital, and other areas as appropriate. Course content, pedagogy, and prerequisites vary by topic and instructor. May be repeated once.

FINA 6309. Foundations of Accounting and Finance. (3,4 Hours)
Explores key principles of accounting, as presented in the principal financial statements. Using those principles, explores a number of accounting practices and issues. Develops tools of financial analysis and financial planning and applies the information gained to business decision making. Utilizing the principle of time value of money to compare inflows and outflows of funds occurring at different times, develops basic decision tools for managers to make sound financial choices and to understand the context in which they are made. At the end of the course, the successful student should have a sound basic understanding of accounting and financial matters and the ability to understand business decisions in context and to evaluate the choices that management faces in the normal course of business development.

FINA 6318. Financial Management. (2 Hours)
Introduces time value of money calculations and applications. Building upon a basis in accounting, offers students an opportunity to learn how to extract relevant information from the accounting statements for use in financial calculations and ratio analysis. Also examines capital planning, including determining relevant cash flows, calculating decision measures, and making the correct decisions.

FINA 6320. Advanced Financial Management. (3 Hours)
Builds upon FINA 6318. Focuses on capital allocation and both equity and fixed-income markets. Covers the fundamentals of stock and bond valuation, as well as a brief review of macroeconomic concepts including the role of the Federal Reserve, growth, and inflation. Culminates with coverage of firm capital structure and the weighted average cost of capital (WACC).

Prerequisite(s): FINA 6318 with a minimum grade of C- or FINA 6200 with a minimum grade of C-

FINA 6331. Corporate Finance. (3 Hours)
Introduces the basic framework of corporate finance and financial decision making. Topics include capital budgeting; capital investment decisions; complex valuations; security issues; dividend policy; static and dynamic capital structure; real option analysis; restructuring; bankruptcy; corporate control and governance; and the legal, ethical, and regulatory environment of financial management.

FINA 6332. Fundamentals of Financial Math and Financial Markets. (3 Hours)
Introduces the essential fundamental mathematics needed for the study of modern finance: probability, stochastic processes, statistics, and regression analysis. Also focuses on theory and empirical evidence useful for investment decisions. Topics include financial risk factors, financial models, financial markets and equilibrium models of security prices, market efficiency, and the empirical behavior of security prices.

FINA 6333. Data Analytics in Finance. (3 Hours)
Introduces Python and its use as a financial data analytics tool. Python has become one of the most widely used open-source, cross-platform programming languages. Covers the basics of programming in Python and key libraries (NumPy, Pandas, Matplotlib, etc.) used in data analytics, then focuses on implementing various financial models in Python. Topics include single and multifactor portfolio models, portfolio theory and the efficient frontier, algorithmic trading, options and futures, and value at risk.

FINA 6334. Empirical Methods in Finance. (3 Hours)
Examines statistical methods used to analyze financial data and test financial theories. Offers students an opportunity to learn how to access various sources of financial data, design empirical tests, and apply basic programming skills to analyze the data and arrive at conclusions. Specific topics include regression analysis, time-series analysis, event study methodology, panel data analysis, and limited dependent variable models.

FINA 6335. Derivatives and Risk Analytics. (3 Hours)
Introduces derivative assets, financial engineering, and risk management. Explores specific hedging use of options, forwards, and futures. Focuses on the determinants of forwards, futures, options and swaps, and various exotic derivatives pricing using computer-based numerical methods in a Monte Carlo setting and in closed form using elements of stochastic calculus. Also explores risk-management strategies using positions in derivative securities, static hedging, and dynamic hedging in continuous time.

FINA 6336. Fixed-Income Securities and Derivatives. (3 Hours)
Exposes students to theory, applications, and evidence concerning highly sensitive interest-rate products. Designed for students seeking to develop understanding of fixed-income valuation and hedging methods and familiarity with major markets and instruments. Emphasizes tools for quantifying, edging, and speculations. Topics include duration; convexity; approaches to modeling the yield curve; interest-rate forward; futures, swaps, and options; credit risk and credit derivative; mortgages; and securitization.

Prerequisite(s): (FINA 6203 with a minimum grade of C- ; FINA 6335 with a minimum grade of C-)

FINA 6337. Computational Methods in Finance. (3 Hours)
Studies various computational methods in finance. Analyzes market data and build trading strategies. Uses interpolation, solver, and optimization methods to calibrate discount curve and volatility surfaces to market prices. Analyzes market data and applies dimension-reduction techniques such as principal component analysis (PCA). Applies time-series analysis and PCA to implement and back test trading strategies.

FINA 6338. Alternative Investments. (3 Hours)
Emphasizes assets and portfolios that fall into the category of alternative investments, which includes nontraditional assets—such as structured products and other types of derivatives—and managed portfolios—such as private equity, venture capital, and hedge funds. Offers students an opportunity to obtain a fundamental understanding of the securities and products that are traded in this space. Focuses on in-depth analyses of case studies, outside speakers, focused discussions, quantitative analyses, and current developments in the industry.

Prerequisite(s): FINA 6203 with a minimum grade of C-

FINA 6339. Quantitative Portfolio Management. (3 Hours)
Offers an introduction to portfolio management with a focus on quantitative methods. Major topics include portfolio construction, revision, and performance measurement. Examines portfolio construction using constrained mean-variance optimization, as well as performance evaluation using factor models such as the Fama-French three-factor model. Additional topics include the effects of diversification on risk reduction and the costs of inflation, taxes, and transaction costs on management of fixed-income and equity security portfolios. Also covers quantitative approaches to manage specific sources of risk. Students employ historical data to construct backtests to assess the performance of various portfolio strategies.

Prerequisite(s): FINA 6203 (may be taken concurrently) with a minimum grade of C-

FINA 6340. Financial Markets and Banking in the Postcrisis Era. (3 Hours)
Examines the history and evolution of the ways banking has changed following the 2008 financial crisis. Changes impacting the banking industry include major changes in the regulatory environment, changes in market liquidity, negative interest rates, shifts in Fed monetary policy, LIBOR transition, and technological innovation (blockchain, digital currency, automation, and artificial intelligence). Analyzes the history and evolution of these changes and the impact on the financial services industry, with a specific focus on the banking sector. Discusses the management of various banking functions (risk management, governance, profitability, liquidity management, auditing, and regulation) in today's regulatory and market environment as well as the evolution of payment systems and the expected impact of technological advancements, such as blockchain and artificial intelligence, on the industry.

Prerequisite(s): FINA 6203 with a minimum grade of C-

FINA 6342. Financial Data and Fintech. (3 Hours)
Covers methods of managing data and extracting insights from real-world financial sources. Topics include extracting and organizing data from financial, geospatial and supply chain sources; financial aggregation; and reporting. Applications include current and emergent data sources employed in finance, risk-weighted assets, market and credit risk modeling, stress testing, and climate risk. Studies major sources of financial data, data visualization, and architecture. Offers hands-on instruction in tools used in the financial industry to process datasets.

Prerequisite(s): FINA 6203 with a minimum grade of C-

FINA 6343. Credit Risk Management. (3 Hours)
Introduces credit and counterparty risk-management practices in banking, corporate and commodity finance, commercial real estate, bonds, and credit derivative markets. Banking and corporate sectors face significant capital funding challenges as central banks respond to inflationary pressures. Presents a range of analytic methods used to assess risk exposures in credit portfolios, price credit products, and hedge credit risk exposure and interest-rate volatility. Covers factors driving corporate ratings and policies aimed at ensuring bank solvency. Models related to credit risk management are presented in class. Assignments employ a variety of technology tools.

Prerequisite(s): FINA 6203 with a minimum grade of C-

FINA 6360. Fund Management for Analysts. (1 Hour)
Introduces a variety of operating documents typical to an active mutual fund. Offers students an opportunity to apply lessons from investment and portfolio management classes by presenting investment recommendations to a panel and communicating with peers in a thoughtful and forceful manner. Investment decisions are made based on student analysis and recommendations that include knowledge of macroeconomic expectations, corporate financing issues, dept-repayment concerns, and employee and technological changes. May be repeated up to three times.

FINA 6361. Fund Management for Managers. (1 Hour)
Builds on FINA 6360. Designed to provide students further analytical knowledge, including exposure to and opportunity to perform managerial tasks related to the management and operation of mutual funds. Included in these tasks are reconsideration of the fund's investment policy statement and asset allocation plan as well as preparation of accounting statements, dealing with compliance issues, addressing ethical concerns, measuring and managing risk, and performing marketing and fund-raising activities. May be repeated up to three times.

Prerequisite(s): FINA 6360 with a minimum grade of C- ; (FINA 6219 (may be taken concurrently) with a minimum grade of C- or FINA 6339 (may be taken concurrently) with a minimum grade of C-)

FINA 6403. Investment Analytics. (4 Hours)
Familiarizes students with domestic and international financial markets and the securities traded therein. Discusses a variety of techniques for valuation of financial assets and relies heavily on quantitative methods. Critically analyzes such qualitative concepts as market efficiency, intrinsic value, and risk. Offers students an opportunity to obtain the ability to build unique valuation models to suit the particular investment alternative they wish to scrutinize, as well as to understand how investment theory and investment practice relate. Studies CAPM, APT, index, and factor models. Discusses fixed-income securities including interest rates, bond valuation, and bond immunization.

FINA 6404. Fundamentals of International Finance. (2 Hours)
Presents the fundamental skills and techniques needed for the financial management of multinational firms. Offers students an opportunity to develop an understanding of the challenges and opportunities facing the financial manager in a global economy. Topics include operation of the foreign exchange markets, international parity conditions, multinational capital budgeting, and sources and instruments of international financing.

Prerequisite(s): (FINA 6418 with a minimum grade of C- ; FINA 6420 (may be taken concurrently) with a minimum grade of C-) or FINA 6431 with a minimum grade of C-

FINA 6407. Financial Modeling. (2 Hours)
Introduces financial modeling applications in the fields of financial risk management, statistics applied to finance, investments, and portfolio management. Offers students an opportunity to develop strong Excel proficiency needed to understand and implement the quantitative aspects of financial topics covered in the various courses taught in the MBA and MSF programs and to learn how to use a variety of spreadsheet tools and techniques to enhance their overall analytical skill set.

Prerequisite(s): FINA 6418 with a minimum grade of C- or FINA 6420 (may be taken concurrently) with a minimum grade of C-

FINA 6410. Advanced Real Estate Financial Modeling. (2 Hours)
Explores real estate finance and modeling, building on foundational knowledge from prior coursework. Key focus areas include advanced real estate modeling techniques, complex mortgage financing, and securitized markets. Covers topics such as discounted cash flow models, investment return profiles, cap rate analysis, commercial mortgage-backed securities, REITs, and real estate private equity funds. Emphasizes the practical application of advanced financial analysis in real estate investment.

Prerequisite(s): (FINA 6418 with a minimum grade of C- ; FINA 6420 (may be taken concurrently) with a minimum grade of C-) or FINA 6432 with a minimum grade of C-

FINA 6412. Applied Statistics for Finance. (2 Hours)
Introduces essential statistical concepts in a financial context with a focus on bridging theory and practice. Covers a wide variety of distributions useful in financial applications. Explains important models used in time-series analysis. Offers practice using a high-level programming language to perform statistical computations using financial data.

FINA 6413. Introduction to Game Theory. (2 Hours)
Introduces#game theory, focusing on key solution concepts such as backward induction, Nash equilibrium, and rationalizability. Covers various types of games including sequential; simultaneous; and repeated games with discrete, continuous, and mixed-strategy equilibria. Explores adverse selection, signaling, screening, risk aversion, and risk-sharing agreements.

FINA 6414. Merger and Acquisition Strategy. (2 Hours)
Offers a comprehensive overview of the strategic aspects of mergers and acquisitions. Surveys the motivations behind corporate combinations and the factors that drive successful MA deals. Explores the strategic decision-making process including friendly and hostile merger strategies, anti-hostile takeover strategies, merger plans, merger process, and due diligence. Examines the legal, regulatory, and antitrust considerations involved in MA transactions.

Prerequisite(s): (FINA 6318 with a minimum grade of C- or FINA 6420 (may be taken concurrently) with a minimum grade of C-) or FINA 6431 with a minimum grade of C-

FINA 6416. Valuation and Value Creation. (4 Hours)
Explores recent developments in financial management and financial analysis through the use of modern finance theory to make capital allocation decisions that lead to the creation of long-run value. Focuses on applications and spreadsheet modeling. Utilizes valuation analysis models to merge financial, corporate, and business strategies to measure and manage corporate value. Offers students an opportunity to develop an understanding of the mechanics of the valuation process, along with an understanding of the drivers of value and the development of strategies for value creation. Discusses contemporary topics, for example, environmental, social, and governance, or ESG; valuation of nontraditional assets; and valuation of digital firms. Covers issues relevant to valuation and strategy consultants, corporate managers, securities analysts, and private equity analysts.

Prerequisite(s): (FINA 6418 with a minimum grade of C- ; FINA 6420 (may be taken concurrently) with a minimum grade of C-) or FINA 6431 with a minimum grade of C-

FINA 6417. Real Estate Investment. (2 Hours)
Explores real estate principles in-depth. Focuses on risks and opportunities within the industry. Key topics include real estate market structure, investment fundamentals, valuation strategies, and mortgage financing principles. Includes U.S. and global market dynamics, legal concepts, financial modeling, and asset valuation.

Prerequisite(s): (FINA 6418 with a minimum grade of C- ; FINA 6420 (may be taken concurrently) with a minimum grade of C-) or FINA 6432 with a minimum grade of C-

FINA 6421. Applied Econometrics for Finance. (2 Hours)
Examines the financial econometric methods used to analyze financial data and test financial theories. Explores how to access various sources of financial data, design empirical tests, and apply basic programming skills to analyze the data and arrive at conclusions. Specific topics include regression analysis, time-series analysis, panel data analysis, and event study methodology.

FINA 6423. Quantitative Methods in International Finance. (2 Hours)
Focuses on quantitative methods and techniques for the financial management of multinational firms, built upon foundational knowledge. Topics include exchange rate determination, currency derivatives, international arbitrage, interest rate parity, managing transaction exposure, and international cash management. Offers an opportunity to explore and master the essential quantitative skills required to navigate the complex financial landscape of multinational firms.

FINA 6424. Corporate Governance. (2 Hours)
Examines the conflicts of interest associated with the separation of ownership and control of the corporation. Applies agency theory and practice to the issues raised and draws on seminal works in the finance and economics literature that influence the current debate in this area. Discusses legal and ethical considerations that are especially important in corporate-control issues. Uses cases to illustrate the theories discussed and data and software from the Wharton Research Data Services database to measure financial relationships related to corporate governance.

Prerequisite(s): FINA 6420 with a minimum grade of C- or FINA 6431 with a minimum grade of C-

FINA 6431. Corporate Finance. (4 Hours)
Introduces the basic framework of corporate finance and financial decision making. Topics include capital budgeting; capital investment decisions; complex valuations; security issues; dividend policy; static and dynamic capital structure; real option analysis; restructuring; bankruptcy; corporate control and governance; the legal, ethical, and regulatory environment of financial management; risk management; and mergers and acquisitions.

FINA 6432. Fundamentals of Financial Math and Financial Markets. (4 Hours)
Introduces the essential mathematical tools required for modern finance and their application in a high-level programming language. Emphasizes both theoretical concepts and empirical evidence crucial for informed investment decisions. Key topics include linear algebra, calculus (single and multivariable), optimization theory, probability, statistics, and stochastic processes. Empirical subjects include the present value of money, the capital asset pricing model, mean-variance optimization, asset price dynamics, and option pricing.

FINA 6433. Fundamentals of Programming for Finance. (2 Hours)
Introduces programming for finance and financial data analytics. Presents key concepts in programming, data structures, and data analysis with high-level programming language. Integrates data analytics libraries and tools with techniques for acquiring and combining data from different sources. Uses these tools and techniques to evaluate risk and return.

FINA 6435. Derivatives and Risk Analysis. (4 Hours)
Introduces and explores financial risk management using derivative instruments, which are contracts whose values derive from prices of underlying assets and goods such as equities, currencies, debt, and commodities. Derivative pricing is essentially applied mathematics and highly quantitative. Focuses on the valuation and application of the principal derivative building blocks including swaps, futures, forward, and option contracts. Covers market structure and how corporations and financial institutions use these products to control financial market risks. Examines global developments and new product innovations.

FINA 6436. Fixed-Income Securities. (2 Hours)
Exposes students to theory, applications, and evidence concerning interest-rate products. Designed for students seeking to understand fixed-income valuation and hedging methods and to become familiar with major markets and instruments. Analyzes the concepts of interest-rate risk and credit risk. Discusses recent developments in pension fund management, asset/liability management, duration matching, and gap management.

FINA 6437. Fintech, Financial Innovation, and Blockchain. (4 Hours)
Offers a broad overview of the world of fintech, from the perspectives of both large financial institutions and small startups. Evaluates the financial services industry, forces at play that may lead to disruption in the industry, startups that have already succeeded in bringing about change, the technological tools that may be used to make changes, and how both startups and established firms might respond to the continued pace of change.

FINA 6438. Alternative Investments. (2 Hours)
Emphasizes assets and portfolios that fall into the category of alternative investments, which includes nontraditional assets and managed portfolios such as private equity, venture capital, real assets, and hedge funds. Offers students an opportunity to obtain a fundamental understanding of the securities and products that are traded in this space. Focuses on in-depth analyses of case studies, targeted discussions, quantitative analyses, and current developments in the industry.

FINA 6439. Quantitative Portfolio Management. (2 Hours)
Introduces portfolio management with a focus on quantitative methods. Major topics include the construction, rebalancing, and performance measurement of active equity portfolios. Examines portfolio construction using constrained mean-variance optimization, as well as performance evaluation using multi-factor models of risk such as the Fama-French three-factor model. Additional topics include the effects of diversification on risk reduction, transaction cost management, and style attribution. Also covers quantitative approaches to manage specific sources of risk. Course is applied and MATLAB based, and students employ historical data to backtest and assess the performance of various portfolio strategies.

Prerequisite(s): FINA 6403 with a minimum grade of C-

FINA 6440. Financial Markets and Banking in the Post Financial Crisis Era. (2 Hours)
Examines the history and evolution of the ways banking has changed following the 2008 financial crisis. Includes major changes in the regulatory environment, changes in market liquidity, negative interest rates, shifts in Fed monetary policy, LIBOR transition, and technological innovation. Analyzes these changes and the impact on the financial services industry, with a specific focus on the banking sector. Discusses the management of various banking functions (risk management, governance, profitability, liquidity management, auditing, and regulation) in today's regulatory and market environment.

Prerequisite(s): FINA 6403 with a minimum grade of C-

FINA 6442. Financial Data and Fintech. (2 Hours)
Covers methods of managing data and extracting insights from real-world financial sources. Topics include extracting and organizing data from financial, geospatial, and supply chain sources; financial aggregation; and reporting. Applications include current and emergent data sources employed in finance, risk-weighted assets, market and credit risk modeling, stress testing, and climate risk. Studies major sources of financial data, data visualization, and architecture. Offers hands-on instruction in tools used in the financial industry to process datasets.#.

Prerequisite(s): FINA 6403 with a minimum grade of C-

FINA 6443. Credit Risk Management. (2 Hours)
Introduces credit and counterparty risk-management practices in banking, corporate and commodity finance, commercial real estate, bonds, and credit derivative markets. Banking and corporate sectors face significant capital funding challenges as central banks respond to inflationary pressures. Presents a range of analytic methods used to assess risk exposures in credit portfolios, price credit products, and hedge credit risk exposure and interest-rate volatility. Covers factors driving corporate ratings and policies aimed at ensuring bank solvency. Presents models related to credit risk management.

Prerequisite(s): FINA 6403 with a minimum grade of C-

FINA 6450. Futures Market Trading Strategies. (1 Hour)
Introduces futures market trading strategies with applications in a high-level programming language such as Python. These trading strategies provide an alternative approach to security selection and portfolio construction, offering investors returns that are uncorrelated to traditional stock and bond portfolios. Covers global macro trading, trend following, and carry strategies. Includes other topics such as constructing trading strategies, exploring the effects of leverage, and incorporating strategies into a traditional portfolio.

Prerequisite(s): FINA 6403 with a minimum grade of C- ; FINA 6433 with a minimum grade of C-

FINA 6451. Risk Arbitrage. (1 Hour)
Introduces risk arbitrage, a strategy that profits from price gaps during mergers and acquisitions. Explores how to analyze deals, estimate success odds, and build portfolios with applications in a high-level programming language such as Python. Offers students an opportunity to test real-world strategies and weigh risks vs. rewards in alternative investments.

Prerequisite(s): FINA 6203 with a minimum grade of C- or FINA 6433 with a minimum grade of C-

FINA 6460. Fund Management for Analysts. (1 Hour)
Introduces a variety of operating documents typical to an active mutual fund. Offers students an opportunity to apply lessons from investment and portfolio management classes by presenting investment recommendations to a panel and communicating with peers in a thoughtful and forceful manner. Investment decisions are made based on student analysis and recommendations that include knowledge of macroeconomic expectations, corporate financing issues, dept-repayment concerns, and employee and technological changes. May be repeated up to three times.

FINA 6461. Fund Management for Managers. (1 Hour)
Builds on FINA 6460. Offers students an opportunity to obtain further analytical knowledge, including exposure to and opportunity to perform managerial tasks related to the management and operation of mutual funds. Included in these tasks are reconsideration of the fund's investment policy statement and asset allocation plan and preparation of accounting statements, dealing with compliance issues, addressing ethical concerns, measuring and managing risk, and performing marketing and fundraising activities. May be repeated up to three times.

Prerequisite(s): FINA 6460 with a minimum grade of C- ; (FINA 6419 (may be taken concurrently) with a minimum grade of C- or FINA 6439 (may be taken concurrently) with a minimum grade of C-)

FINA 6492. Advanced Topics in Finance. (2,4 Hours)
Examines current, specialized, and advanced topics in the areas of corporate finance, investments, risk management, valuation, private equity, venture capital, and other areas as appropriate. Course content, pedagogy, and prerequisites vary by topic and instructor.

FINA 6962. Elective. (1-4 Hours)
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

FINA 7976. Directed Study. (1-4 Hours)
Offers independent work under the direction of members of the department on chosen topics. May be repeated without limit.