

# FINANCE (FINE)

---

## **FINE 3000 Personal Finance (3)**

This course is for students who want to increase their understanding of personal finance concepts. The course focuses on personal financial decisions such as investments, taxes, insurance, inflation, mortgages and credit, and it examines basic financial and economic concepts the media covers. The course objective is to make students financially literate, with the knowledge, skills and confidence to take charge of their financial futures. Enrollment is limited to business minor students only, and the course does not count toward the BSM degree.

## **FINE 3010 Financial Management (3)**

This course provides an introduction to finance for students aspiring to careers in financial management. It also provides a general understanding of finance for other students. The course covers time value of money and the valuation of stocks, bonds, and real investment projects.

**Prerequisite(s):** ACCN 2010, ECON 1010, 1020\*, MATH 1230, MGSC 3010\* and MATH 1210 or (MATH 1150 and 1160).

\* May be taken concurrently.

## **FINE 3890 Service Learning (0-1)**

Students complete a service activity in the community in conjunction with the content of a three-credit co-requisite course.

**Maximum Hours:** 99

## **FINE 4001 Private Equity Seminar (3)**

The Private Equity Seminar will provide undergraduate students with a comprehensive overview of the private equity industry. Students will have the opportunity to hear from and interact with professionals in the industry. Speakers will include practitioners from private equity funds, family offices, independent sponsors and limited partners. Topics covered will include fundraising, sourcing and analyzing investment opportunities, valuation, financial modeling, deal structuring, letters of intent, due diligence, portfolio company monitoring, board representation, evaluating investment performance and liquidity options. The class will be a mix of panel discussions, lectures, case studies, exercises and student presentations. Students will complete team projects as well as individual assignments.

**Prerequisite(s):** ACCN 3010, FINE 3010, LGST 3010, MCOM 3010, MGMT 3010, MGSC 3010 and MKTG 3010.

## **FINE 4002 Industry Real Estate Projects Seminar (3)**

The Industry Real Estate Projects Seminar will provide "a real estate experience" to expand a student's understanding of the industry and will assist students to appreciate that the industry's dynamics are based on applications of finance and economics principles. The course is a combination of classroom instruction and intensive exploration of one real estate property via a case competition. **Prerequisite(s):** ACCN 2010, 3010, FINE 3010, LGST 3010, MCOM 3010, MGMT 3010, MGSC 3010 and MKTG 3010.

**Prerequisite(s):** ACCN 3010, FINE 3010, LGST 3010, MCOM 3010, MGMT 3010, MGSC 3010 and MKTG 3010.

## **FINE 4010 Financial Modeling for Real Estate (3)**

The course in Real Estate Financial Modeling provides students with the knowledge and skills required to analyze and make informed financial decisions in the real estate industry. Students will learn the fundamentals of real estate financial modeling, including key concepts, techniques, and tools used to evaluate investment opportunities and assess the financial feasibility of real estate projects. Through a combination of theoretical instruction, hands-on exercises, and real-world case studies, students will develop proficiency in modeling several types of real estate-related financial transactions and gain insights into the dynamics of the real estate market.

**Prerequisite(s):** FINE 3010, MGSC 3010 and INFO 1010.

## **FINE 4100 Advanced Financial Management (3)**

This course is intended for students who wish to learn and analyze the concepts, theories and applications of modern corporate finance. The course builds on the topics of FINE 3010 and covers a wide range of topics related to corporate finance. Specific topics include in-depth analyses of firms' financing choices and their impact on value, advanced capital budgeting, agency costs, dividend policy, stock splits/repurchases, mergers and acquisitions, and financial distress. The course will also cover stock option characteristics, valuation and applications. **Prerequisite(s):** FINE 3010.

**Prerequisite(s):** FINE 3010.

## **FINE 4110 Investments in Equities (3)**

This course focuses on equity investing. The major topic areas are equity markets, valuation and portfolio management. Course content consists of descriptive material, theoretical models and the practical application of theory. Topics include stock market exchanges, indexes, risk and return, diversification, market efficiency, portfolio theory and management, portfolio evaluation, mutual funds, and fundamental market, industry and company analysis. **Prerequisites:** FINE 3010.

**Prerequisite(s):** FINE 3010.

**FINE 4120 Analysis of Fixed Income Securities (3)**

This course deals with the analysis of fixed income securities. Topics include valuation of different bond types, calculation of yield to maturity and total returns, accrued interest, day-counting rules, measurement of interest rate risk (duration and convexity), term structure of interest rates, money markets, mortgages and the concept of pass-through securities, and management of interest rate risk through fixed income derivatives. Students will explore theoretical aspects and applications of theory. The professor may also introduce spreadsheet modeling in the above areas. Prerequisites: FINE 3010.

**Prerequisite(s):** FINE 3010.

**FINE 4130 Venture Capital and Private Equity (3)**

This course analyzes the concepts and theories of entrepreneurial finance, which includes venture capital and private equity. The course builds on the core finance topics covered in FINE 3010 and covers a wide range of topics related to entrepreneurial finance. Apart from an in-depth analysis of new venture financing, the course also covers the financial aspects of strategic and business planning, financial forecasting, valuation, organization design and financial contracting, and financing and harvesting choices. Prerequisites: FINE 3010, 4100.

**Prerequisite(s):** FINE 3010 and 4100.

**FINE 4140 Risk Management (3)**

This course focuses on (1) identifying financial risks associated with interest rates, currencies and commodities (2) the properties, payoff structures, trading mechanisms, and valuation of key financial derivatives, such as forwards, futures and options (3) understanding why and how firms hedge risk using derivatives. Prerequisites: FINE 4100, FINE 4110, FINE 4120

**Prerequisite(s):** FINE 4100, 4110 and 4120.

**FINE 4145 Advanced Trading (3)**

This course is about trading financial assets. It is intended for students who expect to take trading jobs, but is also relevant for all students who expect to trade securities. The course examines the application of technology to implement financial theories and models. It uses a combination of lectures and exercises conducted in the school's state-of-the-art trading facility to make students comfortable with how to construct trading strategies and how to use contemporary models to price and hedge derivative securities.

**Prerequisite(s):** FINE 4140\*.

\* May be taken concurrently.

**FINE 4150 International Finance (3)**

This course provides an integrated view of international financial markets and the management of multinational firms. It introduces students to markets for spot currency transactions, currency forwards, options and swaps. Students are familiarized with tools for valuing instruments traded in these markets. The course then focuses on the opportunities and challenges these markets present to multinational managers attempting to manage exposure to exchange rates, raise capital in international capital markets and evaluate international capital budgeting projects. Prerequisites: FINE 4100, FINE 4120

**Prerequisite(s):** FINE 4100 and 4120.

**FINE 4160 Equity Analysis/Burkenroad Reports (3)**

Students must apply to Burkenroad Reports, and enrollment is by invitation only. Enrollment is limited to Finance majors who are in the second semester of their junior year or first semester of their senior year, and who have minimum 3.000 cumulative and business grade-point averages. In this valuable hands-on course, teams of three or four students meet with top management, visit company sites, develop financial models and publish in-depth investment research reports on public companies. The reports become available at [www.burkenroad.org](http://www.burkenroad.org) and are distributed to more than 20,000 institutional and individual investors. Students are also responsible for introducing company management at the Burkenroad Reports Investment Conference each spring. The companies are located in Alabama, Florida, Georgia, Louisiana, Mississippi and Texas.

**Prerequisite(s):** ACCN 3100\* and FINE 4110\*.

\* May be taken concurrently.

**FINE 4170 Financial Modeling (3)**

This course makes the connection between studying textbook finance theory and solving real-world business problems. The course provides students with a "nuts and bolts" guide to solving common financial problems by building financial models in spreadsheets. Topics include pro-forma financial forecasts, modeling stock prices, user-defined functions in VBA and Monte Carlo simulation. In addition, the professor may explore other finance problems. Prerequisites: FINE 3010, MGSC 3010

**Prerequisite(s):** FINE 3010 and MGSC 3010.

**FINE 4190 Commercial Bank Management (3)**

FINE 4190 explores emerging institutional changes as they relate to the structure of commercial banks. Topics include asset and liability management, loan evaluations and policies, investment policies and management, and financial analysis of banks. Prerequisite: FINE 3010

**Prerequisite(s):** FINE 3010.

**FINE 4210 Real Estate Planning and Development (3)**

FINE 4210 places the student in the role of real estate project manager, using the tools of the developer, entrepreneur and business person. The primary responsibility of the principal or consultant in a real estate venture is to manage all resources efficiently and effectively. The course will examine current professional development in real estate and the decision-making process under changing economic conditions, environmental expectations, and federal and state tax legislation. Prerequisite(s): FINE 3010 and MGSC 3010.

**Prerequisite(s):** FINE 3010 and MGSC 3010.

**FINE 4240 Special Offering (1-3)**

This is a topics-oriented approach to the history of pre-industrial, industrializing and industrialized economies with a focus on on the United States and Western Europe. Particular emphasis is placed on the historical conditions that caused major changes in financial markets. Topics covered includes the roles of elites in the development of new mediums and mechanisms of exchange; the evolution of modern fiscal systems to finance territorial expansion, geopolitical strategies and subsequent military operations; the articulation of new financial networks in the wake of the world wars of the twentieth century; and the deployment of globalized systems of finance and trade at the conclusion of the Cold War and at the start of the new century. This course discusses who, what, where, when and how various financial instruments evolved, ranging from clay tablet receipts for grain in ancient Sumter to the deployment of government bonds in England during the Napoleonic Wars, and it includes the birth of statistics-based insurance markets in 18th century Scotland. We will place particular emphasis on assessing the historical conditions that caused these major additions to the portfolio of available financial instruments. Prerequisite(s): ECON 1010 and 1020.

**Prerequisite(s):** ECON 1010 and 1020.

**FINE 4250 Applied Portfolio Management (3)**

The course provides a practical introduction to applied portfolio management and trading, using a combination of lectures and the software platform, ALPHABETA. The software has been developed to provide a common platform for students and professionals, and everything students will learn in this course is used by leading real-world portfolio managers. Portfolio managers make their decisions based on strong academic theory and research. In this sense, the course is for students who wish to learn modern and real world portfolio management strategies. Prerequisites: FINE 4100, FINE 4110

**Prerequisite(s):** FINE 4100 and 4110.

**FINE 4260 Financial Intermediaries (3)**

This course is designed to give students a thorough understanding of the financial intermediaries that allow capital markets to function efficiently. Topics will include (but may not necessarily be limited to) the Federal Reserve, commercial banking, insurance companies, mutual funds, ETFs, hedge funds and investment banking. Students who meet the course requirements will leave with a clear understanding of what intermediaries do, how to evaluate or value intermediaries, and what issues they currently face. Prerequisites: FINE 3010, FINE 4110; junior standing and above

**Prerequisite(s):** FINE 3010 and 4110.

**FINE 4310 Cases in Real Estate Finance (3)**

This "high touch" course combines case study pedagogical methodology with experiential learning to give students the knowledge and skills to succeed as a real estate finance professional. The course builds upon the fundamental principles, concepts, and methods used in real estate finance and investment analysis. Using a holistic approach, students combine case study analysis, in-class exercises, and guest lectures to gain real-time perspectives on current trends and important developments in the industry. While we will have several guest lectures throughout the semester, many class sessions will follow an informal "studio" format, with students expected to take considerable initiative. Adding to the excitement, student teams will be assigned an actual client working within the real estate field, whom they will assist with a real-time business problem. This critical engagement allows students to step outside the classroom and into the exciting and dynamic world of the real estate analyst.

**Prerequisite(s):** FINE 3010.

**FINE 4340 A Selber Jr on Distressed Debt (3)**

This course introduces students to the broader field of alternative investing through an in-depth analysis of distressed debt investment opportunities. As part of the course, students will study a variety of applied case studies as well as relevant academic research papers on the subject. Leading practitioners in the alternative investment industry will visit the class as guest lecturers and mentors as students build their foundation of knowledge. Ultimately, students will work in teams to develop a pitch book that will analyze a distressed company and "pitch" an idea for investment in that company's debt and/or equity through a variety of strategies that will be discussed during the course. Note: Students must apply for enrollment in this course.

**Prerequisite(s):** FINE 4100 and 4110.

**FINE 4350 Aaron Selber Jr on Hedge Funds (3)**

This course introduces students to the broad field of alternative investing through an in-depth analysis of hedge fund investments. As part of the course, students will study a variety of applied case studies and relevant academic research papers on the subject. Leading practitioners in the hedge fund investment industry will visit the class as guest lecturers and mentors to students to help them build their foundations of knowledge. Ultimately, students will work in teams to develop a prospectus for a hypothetical new hedge fund. Students will compete in a simulated conference to raise committed capital for their newly created hedge fund. Students must apply for enrollment in this course. Prerequisites: FINE 4110, senior standing

**Prerequisite(s):** FINE 4110.

**FINE 4380 Climate Change, ESG, and Financial Markets (3)**

This course focuses on understanding how climate change risk could impact the economy and financial markets. We discuss Milton Friedman's influential article, which outlines why the only objective of a business should be to increase profits for its shareholders, and then review recent critiques of this argument. Although the course focuses on the E (Environment), we also discuss the S (Social) and G (Governance) aspects of ESG. We discuss motivations to invest in ESG assets, including shareholder preferences, screening bad investments, and constructing optimal portfolios for investors with climate risk exposures. We examine the macroeconomic effects of climate change, and its impact on specific markets such as equity, bonds, loans, and real estate. The course also covers methods of quantifying and measuring climate exposures. Students will read recent research that examines whether investor ESG preferences affect a firm's cost of capital and whether investors can do well while doing good. Students will also develop quantitative equity trading strategies related to climate risks and ESG. As part of a group project, students will develop and test a trading strategy designed to hedge climate risks or make greater returns by investing in climate or, more broadly, ESG-friendly assets. Finally, new "green" financial products, the emerging carbon offsets market, and regulatory efforts to limit climate change are discussed.

**Prerequisite(s):** FINE 3010.

**FINE 4410 Special Topics (1-3)**

Special topics course as designed by visiting or permanent Finance faculty. For description, consult the department. Course may be repeated up to unlimited credit hours under separate title.

**FINE 4550 Finance Internship (1)**

Freeman School majors may elect to do a business internship that will appear as a one-credit, 4000-level course on their transcripts; however, the credit does not apply towards the 122 minimum hours required for a BSM degree. The internship must be related to one of the majors offered through the BSM program, and it must apply (within an ongoing business organization) the intellectual capital obtained from first- through third-year Freeman School courses. To obtain approval for the internship, the student must visit the Career Management Center for instructions. Students receive a grade of Satisfactory/Unsatisfactory for the internship upon submitting a paper/evaluation to a supervising faculty member in the Career Management Center. This course is normally offered during the summer and fulfills the "curricular practical training" option for students with F-1 visa status.

**FINE 4600 Cases In Valuation & Financing (3)**

An applications course, FINE 4600 typically deals with cases involving working capital, mergers, corporate valuation and capital budgeting analysis and planning. The course reinforces and applies concepts and techniques from Accounting and Financial Economics in a practical setting.

Prerequisites: FINE 4100, FINE 4110; senior standing

**Prerequisite(s):** FINE 4100 and 4110.

**FINE 4610 Darwin Fenner Student Managed Fund Honors Seminar (3)**

This course satisfies the upper level honors course requirement for students in the honors program. The course combines academic study with actual investing. As part of the course, students manage a portfolio of stocks called the Darwin Fenner Student Managed Fund. Students study academic research papers and classic writings that have influenced equity investing. Through reading and discussing academic research papers, students develop a critical thinking process and proprietary investment models. Working in groups, students analyze all stock in their assigned sector of the stock market and make buy, sell and hold recommendations to the class. In addition, the class evaluates the historic performance of the fund.

Enrollment is by invitation only. Prerequisites: FINE 4100, 4110 and 4120\* (\* May be taken concurrently); Invitation by Finance faculty; senior standing and Finance major – invitation only

**Prerequisite(s):** FINE 4100, 4110 and 4120\*.

\* May be taken concurrently.

**FINE 4620 Invest Banking-Financial Firms (3)**

This applications-oriented course builds upon the valuation concepts students learned in FINE 4100 (Advanced Financial Management) and applies them to investment- banking-style analysis for financial firms. Financial firms have unique asset, liability, risk and regulatory attributes that make them fundamentally different from other firms; as a result, they are often challenging to value. In this course, students will construct financial firm valuation models to later integrate into full-scale merger and acquisition analyses. Additionally, the instructor will use case studies based on banks, insurance companies, real estate investment trusts (REITs), asset management companies and other financial services companies to demonstrate varying business models, proper valuation and the overall acquisition and integration of financial firms. The course will be particularly helpful for students with an interest in working as buy-side or sell-side financial analysts covering the financial sector. It will also provide insights into understanding the business models of financial firms, which should be valuable to students who aspire to work for firms in the financial sector. Prerequisites: FINE 4100; junior standing

**Prerequisite(s):** FINE 4100.

**FINE 4630 Financial Planning and Analysis (3)**

The objective of this course is to provide a comprehensive, practical, hands-on understanding of Financial Planning & Analysis, one of the most critical functions of a firm's Finance team. Largely mirroring the expanding role of the CFO, the FP&A organization is called upon to lead the development of strategic initiatives, plans and projections, evaluate internal and competitive trends and variances, evaluate complex investment decisions, assess the firm's intrinsic value and analyze, promote ways to grow shareholder value and be a trusted partner of a firm's CFO and operating group leadership. The course will focus on developing an understanding of (1) overall financial drivers and essential analytical capabilities, (2) performance management, (3) projections and planning, (4) planning and analysis of critical value drivers including capital investments, and (5) intrinsic valuation and value creation.

**Prerequisite(s):** FINE 4100.

**FINE 4910 Independent Study (0.5-3)**

Freeman School seniors who have demonstrated academic excellence are allowed to pursue an independent study. The work may take the form of directed readings, laboratory or library research, or original composition. Instead of traditional class attendance, the student substitutes conferences with the supervising faculty, as needed. An Independent Study requires the approval of the supervising instructor and the Associate Dean for Undergraduate Education. The credit does not apply towards the Finance major requirements for a BSM degree; the Independent Study counts as Business elective credit only. Interested students should contact the Office of Undergraduate Education at the Freeman School. Prerequisites: Minimum cumulative GPA of 3.333 or higher; senior standing. Course may be repeated up to unlimited credit hours.

**Maximum Hours:** 99

**FINE 4990 Finance Honors Thesis (3)**

This course is the traditional thesis option for the Finance area. Students enrolled in this course will begin their theses in the fall semester. They will conclude their theses in FINE 5000 in the spring semester.

**FINE 5000 Finance Honors Thesis (4)**

This course is the traditional thesis option for the Finance area. Students enrolled in this course will conclude their theses in the spring semester. They will start the theses in FINE 4990 in the fall semester. Prerequisites: FINE 4990

**Prerequisite(s):** FINE 4990.

**FINE 5380 Business Study Abroad - FINE (1-20)**

Course may be repeated up to unlimited credit hours.

**Maximum Hours:** 99

**FINE 5390 Business Study Abroad - FINE (1-20)**

Course may be repeated up to unlimited credit hours.

**Maximum Hours:** 99

**FINE 6000 Fundamentals of Finance (1)**

This course provides students with a fundamental understanding of the discipline of finance and prepares students for advanced finance coursework. The course covers time value of money and the basics of valuation of stocks and bonds. The course also introduces students to financial modeling techniques in Excel.

**FINE 6010 Economics for Managers (2)**

This course focuses on the economic principles and knowledge necessary for effective enterprise management in the modern business environment. The course is divided into two modules, one focused on applied microeconomics, the other focused on the macroeconomic foundations of the U.S. and world economy. The microeconomic module applies the economic theory of the firm and consumer behavior to analyze household and firm behavior. Applications include market demand analysis and marketing strategy, production and cost efficiency, pricing, product quality and other competitive strategies. The macroeconomic module examines the U.S. and world economy in relation to national income, international trade, and patterns of investment. Topics include the determination of interest rates, inflation, investment, wage levels, real output growth, exchange rates, and international trade and investment patterns. Also included is a study of the role of financial and governmental institutions in domestic and world commerce.

**FINE 6020 Analysis for Financial Mgmt (3)**

This course provides an introduction to the discipline of finance and gives students the tools they need to make capital budgeting decisions for firms. It begins with the study of the time value of money and how to value stocks and bonds. From there, it moves into capital budgeting techniques including net present value and internal rate of return. Students will learn how to evaluate an asset's risk and expected return within the context of a portfolio, leading to the fundamentals of asset pricing theory. Cash flow analysis, inflation, and a firm's cost of capital are all topics that are covered. The course concludes with a discussion of market efficiency and its implications. By the end of the course, students will be familiar with the basic tools used to analyze the investment and financing decisions made within firms.

**FINE 6030 Managerial Finance (2)**

This course introduces the discipline of finance and gives students the tools they need to make capital budgeting decisions for firms. It begins with the study of the time value of money and how to value stocks and bonds. From there, it moves into capital budgeting techniques including net present value and internal rate of return. Students will learn how to evaluate an asset's risk and expected return within the context of a portfolio, leading to the fundamentals of asset pricing theory. Cash flow analysis, inflation, and a firm's cost of capital are all topics that are covered. By the end of the course, students will be familiar with the basic tools used to analyze the investment and financing decisions made within firms.

**FINE 6040 Financial Models for Business Decisions (2)**

While finance provides clear guidelines on corporate and investor decision-making in theory, applying these ideas to real-world settings is difficult because real data is noisy and outcomes often depend on implementation choices. We begin by examining complications in calculating the present value of uncertain future cash flows, a key input to valuations and project go/no-go decisions. We study how to forecast future financial statements and cash flows, incorporate uncertainty in growth assumptions using scenarios and Monte Carlo simulations, and implementation choices in calculating discount rates. We then study decisions that investors make: how to build optimal portfolios and assess mutual fund performance.

**Prerequisite(s):** MGSC 6010, 6030 and FINE 6030.

**FINE 6050 Corporate Finance (3)**

Building on concepts learned in Fundamentals of Finance, this intermediate level course continues discussion of valuing cash flow streams and introduces risk, return, and the capital asset pricing model. Following which, the course will move on to an in-depth analysis of firms' financing choices and capital structure, basics of estimation and valuation of corporate cash flows, dividend policy, mergers and acquisitions, options and option pricing, and applications of option pricing in corporate finance including valuation of convertible bonds. While the course is grounded in solid theory, it will provide a thoroughly applied perspective on the topics covered.

**Prerequisite(s):** FINE 6000.

**Corequisite(s):** FINE 7160.

**FINE 6070 Advanced Managerial Finance (2)**

The focus of the course is firm's financing activities, both long-term and short term. Long-term financing includes raising cash through issuance of debt, equity, preferred stock, and convertible bonds. For short-term finance, the course investigates working capital management, including bank loan, cash, credit, and inventory management. The course concludes by discussing techniques for firms to maximize value by minimizing their cost of capital through appropriate financial structure policies.

**FINE 6080 Financial Policy & Valuation (3)**

The course builds on the core finance sequence by focusing on the practical applications of the tools learned in the earlier courses. In addition to lectures, the course will utilize case studies focusing on real-world financial analysis and decision making. Topics may include forecasting cash flows, business valuation, financing, mergers and acquisitions, dividend policy, IPOs, etc. Students will be expected to work in teams on projects throughout the term and to present their work to class.

**FINE 6470 Managerial Economics (3)**

The purpose of this course is to apply the economic theory of the firm and consumer behavior to management decision making. This involves the development of a conceptual framework to analyze household and firm decisions related to product and factor markets and the application of that framework to managerial decisions. Applications focus on market demand analysis and marketing strategy, production and cost efficiency, pricing, product quality and other competitive strategies, optimization under regulatory constraint, optimal employment decisions, and incentive structures. The applications are developed with cases and problems.



**FINE 7110 Investments (3)**

The first half of this course takes students through an in-depth study of portfolio theory. The foundations of modern portfolio theory are rigorously developed and its principles are used to create mean/variance efficient portfolios. Students critically examine the assumptions of modern portfolio theory and its implications. Alternative multifactor pricing models including the Fama/French Three-Factor Model are also explored. The second half of the course focuses on fixed income analytics. Students learn how to price various types of fixed income securities and how to measure their interest rate risk. They learn how to hedge interest rate risk for fixed income portfolios, and how to incorporate call and conversion features into the price of a bond. Students learn how to derive implied forward interest rates, how to bootstrap a yield curve, and the implications of various theories of the term structure. Finally, students will have the opportunity to conduct an event study, learn the basics of options, and discuss how behavioral finance is changing the way asset pricing is viewed. Case studies will be used to learn how hedge funds, mutual funds, exchange-traded funds, and various other investment managers operate. Note: This course is a prerequisite for students who wish to apply for participation in Aaron Selber Jr. Course on Distressed Debt (FINE 7340) or Darwin Fenner Student-Managed Fund (FINE 7610), and a co-requisite for participation in Aaron Selber Jr. Course on Hedge Funds (FINE 7350). Prerequisite(s): FINE 6020.

**Prerequisite(s):** FINE 6020.

**FINE 7130 Advanced Financial Management (3)**

This course builds on the topics covered in Financial Management. The course will cover advanced corporate finance theory and how one translates theory into financial decisions. Topics include firm capital structure, including Jensen's free cash flow (moral hazard), pecking order (adverse selection), and agency conflicts between stockholders and bondholders; capital budgeting when financing considerations are included; external financing, including leasing and security issuance to the public; working capital management, including cash, credit, and inventory management; dividend policy and share repurchases; mergers and acquisitions; corporate governance; options valuation in the context of convertible bonds and warrants; the valuation of real options; and corporate risk management. Special topics such as international finance may also be covered.

**Prerequisite(s):** FINE 6020.

**FINE 7140 Venture Cap & Private Equity (3)**

Entrepreneurial firms face financial issues that are significantly different from those facing established companies. This course focuses on analyzing the special finance issues faced by such companies and on the knowledge and tools needed by managers of these firms. Topics covered will include stages of venture capital development, start-up financing (venture capital, leasing, bank loans), financial management of rapidly growing firms, deal structuring for entrepreneurial firms, and financial distress issues and concerns. Initial public offerings will also be examined as a culminating event for entrepreneurial firms. The course also covers the broader topic of private equity. The course investigates why firms seek private rather than public equity and identifies differences between private and public equity investments. The recent trend of investment in emerging economies by private equity funds is also examined. Students will create a deal or pitch book as part of the class. Prerequisite(s): FINE 6020, 6050 or ENRG 7000.

**Prerequisite(s):** FINE 6020, 6050 or ENRG 7000.

**FINE 7160 Investments & Asset Pricing (3)**

The first half of the course covers security analysis, portfolio theory, and equilibrium models of capital markets. The second half of the course is devoted to an introduction to fixed income analysis and derivatives (futures, options, and swaps). The course will cover security analysis (including valuation models), equilibrium models of capital markets, and portfolio theory including the statistical backdrop for portfolio models. The class will cover bond pricing and the term structure of interest rates as well as methods for determining expected future rates off of the term structure. Then the course will move to an introduction to derivative securities. The use of options to construct various payoff schemes generally unavailable with stocks and bonds will also be covered along with option pricing models such as the Black-Scholes Option Pricing Model and the Binomial Option Pricing Model. The course will cover the mathematics behind the derivation of the Black-Scholes model and the use of stochastic processes. The course will include an ongoing group portfolio project and a project that uses simulation to implement a hedging strategy for a stock. Prerequisite(s): FINE 6050 or 6020.

**Prerequisite(s):** FINE 6020 or 6050\*.

\* May be taken concurrently.

**FINE 7180 Financial Modeling (3)**

This hands-on course focuses on the applications of quantitative models in finance. Course topics include: mathematical and computational models of stock price movements involving stochastic processes; applications of probability theory to portfolio risk analysis; modeling of cash flows and valuation; Monte Carlo simulation applied to both investments and cash flow modeling; applications of numerical optimization in finance; and use of Excel and Python for computation, statistics, and graphics in finance. Prerequisite(s): FINE 6050 or 6020.

**Prerequisite(s):** FINE 6050, 6020 or MGSC 7330.

**FINE 7210 Real Estate Pln,Finc,Dev (3)**

This course focuses on the real estate development process including: land acquisition, zoning, environmental impacts, valuation, financing alternatives, risk assessment, construction, management, leasing, and sale. Real estate decision making under changing economic conditions, environmental expectations, and tax legislation is also discussed. Prerequisite(s): FINE 6020 or 6050.

**Prerequisite(s):** FINE 6020 or 6050.

**FINE 7250 Real Estate Indus Sem (3)**

This intensive seminar provides a “deep dive” into the real estate industry. It expands students’ understanding of the industry and helps students to appreciate that the industry’s dynamics are based on applications of finance and economics principles. The course is a combination of classroom instruction and intensive exploration of one real estate property through an experiential learning project.

**FINE 7310 Cases In Real Estate (3)**

This course utilizes case-based learning methods to illustrate foundational and advanced concepts in real estate finance and economics. Students are introduced to the real estate development process and industry-standard underwriting techniques through examples from several industry segments, including office, retail, multifamily, industrial, and mixed-use. Prerequisite(s): FINE 6050 or 6020.

**Prerequisite(s):** FINE 6020 or 6050.

**FINE 7340 A Selber Jr on Distressed Debt (3)**

This course introduces students to the broader field of alternative investing through an in depth analysis of distressed debt investment opportunities. As part of the course, students will study a variety of applied case studies as well as relevant academic research papers on the subject. Leading practitioners in the alternative investment industry will visit the class as guest lecturers and mentors as students build their foundation of knowledge. Ultimately, students will work in teams to develop a pitch book that will analyze a distressed company and “pitch” an idea for investment in that company’s debt and/or equity through a variety of strategies that will be discussed during the course. Note: Students must apply for enrollment in this course. Prerequisite(s): FINE 7110\* or 7160\* (\* May be taken concurrently.)

**Prerequisite(s):** FINE 7110\* or 7160\*.

\* May be taken concurrently.

**FINE 7350 Aaron Selber Jr on Hedge Funds (3)**

This course introduces students to the broader field of alternative investing through an in-depth analysis of hedge fund investments. As part of the course, students will study a variety of applied case studies as well as relevant academic research papers on the subject. Leading practitioners in the hedge fund investment industry will visit the class as guest lecturers and mentors as students build their foundation of knowledge. Ultimately, students will work in teams to develop a prospectus for a hypothetical new hedge fund. Students will compete in a simulated conference to raise committed capital for their newly-created hedge fund. Note: Students must apply for enrollment in this course. Prerequisite(s): (FINE 7110\* and 7130) or FINE 7160. (\* May be taken concurrently.)

**Prerequisite(s):** (FINE 7110\* and 7130) or FINE 7160.

\* May be taken concurrently.

**FINE 7360 Hospitality Real Estate Dev (3)**

In this class, students learn about the real estate development process and how it uniquely ties into the hospitality industry. First, the foundational metrics, definitions, formulas, and methodologies used by both hospitality and real estate professionals are investigated. That knowledge is then utilized to develop hospitality programs and create institutional-quality market and financial analyses. By the end of the course, students will have the requisite knowledge to sit for the Certification in Hotel Industry Analytics (CHIA) exam.

**FINE 7370 Algorithmic Trading and Quantitative Strategies (3)**

This course is an introduction to financial trading strategies based on methods of statistical arbitrage. Topics include methodologies related to high frequency data, momentum strategies, pairs trading, technical analysis, models of order book dynamics and multi-exchange order placement and routing and dynamic trade planning with feedback. Emphasis is on developing, automating and empirically evaluating the models that reflect the market and behavioral patterns. The course will be balanced between theory and practice with a sufficient theory to understand practical applications. Although the methodologies could be applied to various financial markets, the course will mostly focus on stock and equity markets.

**Prerequisite(s):** FINE 7110 or 7160.

**FINE 7380 Climate Change, ESG, and Financial Markets (3)**

This course focuses on understanding how climate change risk could impact the economy and financial markets. We discuss Milton Friedman’s influential article, which outlines why the only objective of a business should be to increase profits for its shareholders, and then review recent critiques of this argument. Although the course focuses on the E (Environment), we also discuss the S (Social) and G (Governance) aspects of ESG. We discuss motivations to invest in ESG assets, including shareholder preferences, screening bad investments, and constructing optimal portfolios for investors with climate risk exposures. We examine the macroeconomic effects of climate change, and its impact on specific markets such as equity, bonds, loans, and real estate. The course also covers methods of quantifying and measuring climate exposures. Students will read recent research that examines whether investor ESG preferences affect a firm’s cost of capital and whether investors can do well while doing good. Students will also develop quantitative equity trading strategies related to climate risks and ESG. As part of a group project, students will develop and test a trading strategy designed to hedge climate risks or make greater returns by investing in climate or, more broadly, ESG-friendly assets. Finally, new “green” financial products, the emerging carbon offsets market, and regulatory efforts to limit climate change are discussed.

**Prerequisite(s):** FINE 6020, 6030, 6050 or ENRG 7110\*.

\* May be taken concurrently.



**FINE 7450 Real Estate Financial Products and Incentives (3)**

Real estate is one of the older and most popular asset classes. From mainstream products such as public real estate investment trusts and private equity funds to more complex tax lien certificates and collateralized mortgage-backed securities, the spectrum for real estate investors is wide-ranging. Additionally, public/private programs such as low-income housing tax credits, tax-incremental financing, historic rehabilitation tax credits, and opportunity investment zones provide multiple vehicles for investors and developers to consider. This course provides a review of these different products and incentives allowing students to understand the range of options available and their applicability to different real estate investments. Prerequisite: FINE 6020 or 6050.

**Prerequisite(s):** FINE 6020 or 6050.

**FINE 7510 Econometrics and Forecasting (3)**

This course covers advanced regression techniques. The basic regression model is reviewed in the first week, and then more advanced techniques are covered. Topics include testing the assumptions of the regression model, multicollinearity, serial correlation, heteroskedasticity, endogeneity, stability, instrument variables, binary variables, ARCH, forecasting, and basic time-series regression models for both stationary and nonstationary data.

**Prerequisite(s):** FINE 6050, MGSC 7330, ENRG 7120 or MGSC 6020.

**FINE 7530 Burkenroad Rpts for Fin Analys (3)**

In this course, students will review the fundamentals of equity valuation, including dividend discount and discounted cash flow models, rational analysis of performance, and evaluating future growth prospects. The course provides students with a valuable opportunity to gain hands-on experience in equity analysis by participating in Burkenroad Reports. Student analysts work in small teams, visiting company sites, meeting with top management, conducting financial analysis, and preparing an in-depth investment research report on selected under-followed companies in the region. Students also participate in a weekend analyst workshop and the annual Burkenroad Reports Investment Conference. Note: Students must apply for enrollment in this course.

**FINE 7610 Darwn Fennr Student Fund (3)**

This course combines academic study with actual investing. As part of the course, students manage a small-cap portfolio of stocks for the University endowment. The following topics are discussed: market efficiency, abnormal returns, factor models, interpretation of multiple regression outputs, relative valuation applied to industry and company analysis, portfolio theory, portfolio performance evaluation, and portfolio mean-variance optimization. State-of-the-art academic research papers and classic writings that have significantly influenced equity investing are studied. The assigned readings focus on empirical evidence regarding security and portfolio risk and returns. Through reading and discussing research papers and classic writings, students develop a critical thinking process and build proprietary investment models. Using their models, students analyze the S&P 600 stocks in their assigned sector and give a buy, do not buy, hold, or sell recommendation on each stock. Students are also free to develop market-wide investment models to use across market sectors. Note: Students must apply for enrollment in this course. Prerequisite(s): FINE 7110 or 7160.

**Prerequisite(s):** FINE 7160 or 7110.

**FINE 7630 Equity Analysis/Freeman Report (3)**

Teams consisting of four students will create a sell side analyst report for a firm. This will include building a proforma model of the financial statements of a firm in Excel. Students will have an opportunity to pose questions to management of the firms they cover. Students must attend a mandatory modeling weekend program run by an industry leader in such training. Burkenroad Reports does NOT serve as a substitute for this course. Prerequisite(s): FINE 7160.

**Prerequisite(s):** FINE 7160 and 7640\*.

\* May be taken concurrently.

**FINE 7640 Valuation (3)**

This course is designed to teach students the important elements of corporate valuation using discounted cash flow, comparables, and option techniques. The focus is on valuation methods that include various discounted cash flow models, adjusted present value, economic value added model, relative valuation, and real option valuation. Through case studies, students will learn to apply these valuation skills under different settings, such as evaluating new investment decisions, IPOs, mergers and acquisitions, divestitures, and LBOs. This class will also advance students' knowledge on the latest academic research in corporate finance, and bridge the gap between academic studies and business practices. Problem-solving skills are emphasized throughout the course in keeping with the Freeman School's "learning by doing" mission. Students will work on various cases and analyze real life companies. Prerequisite(s): FINE 6020 or 6050.

**Prerequisite(s):** FINE 6050 or 6020.

**FINE 7650 Fixed Income Analytics & Model (3)**

This course will cover the following topics: (1) Surveys of markets (money market, fixed income, repos, federal funds), (2) Fixed income analytics (yield curves, term structure, spot and forward curves), (3) Models of term structure (such as Gauss X model, Nelson Siegel model), (4) Analytical models (1 factor, multi-factor), and (5) Credit derivatives (swaps, structured products, and credit derivatives). Prerequisite(s): FINE 6050\*. (\* May be taken concurrently.)

**Prerequisite(s):** FINE 6050\*.

\* May be taken concurrently.

**FINE 7660 Financial Risk Management (3)**

This course provides a thorough introduction to the valuation and hedging of common derivatives contracts such as futures and options. Students will learn tools to price and hedge using financial derivatives; understand the practical aspects of options and futures trading; and manage the risk of portfolios of derivative securities. Case studies and empirical applications from various industries, including financial services and energy, will be presented. The properties, payoff structures, trading mechanisms, and valuation of these derivatives will be studied. The course includes an analysis of why and how firms manage risk using derivatives as well as of the types of risk, regulatory structure, and risk management mechanisms in different firms. Examples of what went wrong in terms of risk management in various firms, including financial firms, energy companies, and hedge funds will be discussed. This course requires quantitative skills such as basic algebra and statistics. In addition, familiarity with calculus will help in understanding the logic underlying some of the valuation formulae. An introduction to stochastic processes, such as Geometric Brownian Motion, Monte Carlo simulations, and valuing options and hedging using the Black-Scholes analytical formula, is covered. Analytical tools, such as Value-At-Risk, that apply concepts of probability theory to measuring financial risk based on statistical modeling, optimization, and forecasting are also studied.

**Prerequisite(s):** FINE 7110 or 7160.

**FINE 7690 Topics In Int'L Finance (3)****FINE 7810 Special Topics (1-3)**

Special topics course as designed by visiting or permanent Finance faculty. For description, consult the department. Course may be repeated up to unlimited credit hours under separate title.

**FINE 7950 Independent Study (1-3)**

Independent Study: Finance