

# FINANCE (FINANCE)

## **FINANCE 121. Undergraduate Finance Research and Discussion Seminar. 1 Unit.**

This seminar is designed to provide some experience with research methods and topics in finance, and to assist undergraduates with career interests in financial research, whether academic or not, with preparation for those careers. The seminar meetings are weekly and discussion based, covering a range of issues and methods in financial economics. Students are expected to prepare a 30-minute research presentation once during the quarter. To be considered for enrollment in this course, students need to complete an application, found here: <https://forms.gle/aLB279vF3DJUJSgAA>.

## **FINANCE 201. Finance. 3 Units.**

This course covers the foundations of finance with an emphasis on applications that are vital for corporate managers. We will discuss many of the major financial decisions made by corporate managers, both within the firm and in their interactions with investors. Essential in most of these decisions is the process of valuation, which will be an important emphasis of the course. Topics include criteria for making investment decisions, valuation of financial assets and liabilities, relationships between risk and return, capital structure choice, payout policy, the use and valuation of derivative securities, and risk management. This course is targeted to those students who are new to finance and for those with little quantitative background.

## **FINANCE 204. Finance - Accelerated. 3 Units.**

This course covers the foundations of finance with an emphasis on applications that are vital for corporate managers. We will discuss many of the major financial decisions made by corporate managers, both within the firm and in their interactions with investors. Essential in most of these decisions is the process of valuation, which will be an important emphasis of the course. Topics include criteria for making investment decisions, valuation of financial assets and liabilities, relationships between risk and return, capital structure choice, the use and valuation of derivative securities (e.g., options and convertible securities), and risk management. No previous background in finance is required or expected, but in comparison with Finance 201, less time will be spent in class on the steps involved in solving basic problems. Therefore, students choosing this course should be relatively comfortable with basic mathematical operations (e.g., expressions involving multiplication of multiple terms, summation of multiple terms, etc.), though familiarity with the underlying finance concepts is not expected. A good diagnostic is to skim Section 4.2 "Rules for Time Travel" (pp. 98-104) in the course textbook, *Corporate Finance* by Berk and DeMarzo. If you are comfortable with the level of basic mathematics involved (even if the concepts are new), 204 is a good choice. If not, you should consider Finance 201.

## **FINANCE 205. Accelerated Managerial Finance. 3 Units.**

This course covers the foundations of finance with an emphasis on applications that are vital for corporate managers. We will discuss many of the major financial decisions made by corporate managers, both within the firm and in their interactions with investors. Essential in most of these decisions is the process of valuation, which will be an important emphasis of the course. Topics include criteria for making investment decisions, valuation of financial assets and liabilities, relationships between risk and return, capital structure choice, payout policy, the use and valuation of derivative securities, and risk management. This course is targeted to those students who are new to finance and for those with little quantitative background. No previous background in finance is required or expected for this course. Content will be comparable to F201, but the majority of course lecture material will be delivered online, with in-class sessions devoted to applications of key concepts. This "flipped classroom" version of the course is intended for self-motivated students with an interest in applications. Prerequisite material for the course will be posted online in the fall.

## **FINANCE 207. Corporations, Finance, and Governance in the Global Economy. 3 Units.**

As entrepreneurs, global leaders, and change agents tasked with developing transformative solutions of tomorrow, you will need certain skills and tools to interact with and navigate the complex and ever-changing financial landscape. This course focuses on the development of these skills and tools through the analysis of concise real-world financial situations around the globe. Topics include valuation of cash flows and control; the capital structure, payout policy and governance of both mature and entrepreneurial firms; restructuring and managing financial distress; the use of public markets to obtain liquidity and multiple share classes to retain control; financing and governance in venture capital and private equity; the rise of activism; and social responsibility and debates about the objectives of the firms of the present and future. This course is taught jointly by Professors Rauh and Seru.

## **FINANCE 211. Corporate Finance: Applications, Techniques, and Models. 3 Units.**

This course will develop and apply the basic tools and models of corporate finance to real-world corporate decisions. This course is designed to be the second course in the standard finance sequence; that is, it is designed to be the natural follow-up to the Winter Managerial Finance course. This course will develop and extend standard tools and techniques of financial analysis, valuation, and model-building, and apply these methods to a wide range of cases. Case topics will include mergers and acquisitions, private equity, corporate governance, capital structure, agency conflicts, and corporate restructuring. For all of these applications, this course will emphasize the central importance of financial analysis, valuation, and modeling to guiding optimal decision making.

## **FINANCE 214. Accelerated Corporate Finance: Applications, Techniques, and Models. 3 Units.**

This course will develop and apply the basic tools and models of corporate finance to real-world corporate decisions. This course is designed to be the second course in the standard finance sequence; that is, it is designed to be the natural follow-up to the Winter Managerial Finance course. This course will develop and extend standard tools and techniques of financial analysis, valuation, and model-building, and apply these methods to a wide range of cases. Case topics will include mergers and acquisitions, private equity, corporate governance, capital structure, agency conflicts, and corporate restructuring. For all of these applications, this course will emphasize the central importance of financial analysis, valuation, and modeling to guiding optimal decision making.

## **FINANCE 229. MSx: Finance. 3 Units.**

This course covers the foundations of finance with an emphasis on applications that are vital for corporate managers. We will consider many important financial decisions made by corporate managers, both within the firm and in their interactions with investors. Essential to most of these decisions are financial valuations, which will be an important emphasis of the course. Topics include criteria for making investment decisions, valuation of financial assets and liabilities, relationships between risk and return, and capital structure choice.

## **FINANCE 305. Capital Markets and Institutional Investing. 3 Units.**

This course teaches recent advances in asset allocation and management. We emphasize the practical implementation of asset allocation and management tools in allocating assets, selecting asset managers and managing risk. The course focuses on alternative asset classes. Students apply these tools to real-time data in the computer lab. Topics covered include Asset Allocation; Delegated Asset Management and Manager Selection applied to Mutual Funds, Hedge Funds and Private Equity Funds; Multi-factor models and Factor Investing. The class will be co-taught by Ana Marshall, the CIO of the Hewlett Foundation, and Hanno Lustig, who is on the Allocation Advisory Board of the NBIM.

**FINANCE 306. International Finance and Macroeconomics. 3 Units.**

An introduction to the global economy. We will cover a number of important topics for firms, banks, and policy makers: global capital flows, international financial markets, the role of the U.S. and US dollar in the international monetary system, reserve currencies history and future (stable coins?), exchange rates (floating, fixed, and monetary unions), financial crises, international financial policy (capital controls, bank regulation, FX intervention), currency wars, tax havens and global wealth dynamics, global trade, and trade wars. Emphasis will be on data driven approaches, no prior knowledge is assumed. An MBA class designed for those looking to understand today's global economic issues.

**FINANCE 315. Innovating for Financial Inclusion. 3 Units.**

This MBA elective explores innovative ways that start-ups are expanding the financial capacities of households and small businesses. What are the financial frictions that household/business facing impactful FinTech startups are addressing? What economic and behavioral forces are governing the successes of these startups? How is the choice of funding/business model impacting growth/scaling strategies? How is the competitive landscape evolving for traditional banks, established tech platforms, and FinTech startups? While the center of attention will be on disruption of financial services within the US legal and regulatory environments, we will frequently highlight recent innovations in Asia, Europe, and Latin America.

**FINANCE 319. Private Equity Investing Seminar. 3 Units.**

The Investments courses comprise an intensive overview of active fundamental investing in both the public and private equity markets. They are relevant for students who intend to pursue careers in private or public equity investing, as well as those who want to better understand investing from the perspective of an entrepreneur or individual. The vast majority of sessions will feature an outstanding investor guest lecturer. Previous guests included Andreas Halvorsen (Viking Global), Jim Coulter (TPG), Hadley Mullen (TSG Consumer Partners), Ryan Cotton (Bain Capital), Bill Oberndorf (SPO Partners) and Tim Bliss (Investment Group of Santa Barbara), and this year's lineup will be substantially similar. Established and taught for 50 years by the legendary Professor Jack McDonald, the Investments courses will be taught by John Hurley, founder of Cavalry Asset Management and Professor Steve Grenadier in Autumn 2019. Students are required to take F319 and F321 concurrently for 5 total units during the Autumn Quarter. F321 is a 2-unit compressed course that meets MWF from 2:30-5:30pm during Weeks 1 and 8 of the quarter. It addresses real-world applications of business analysis and valuation tools and teaches the skills necessary to evaluate investment opportunities. F319 is a 3-unit course that meets Tu/Th 12:40-2:00 PM throughout the quarter. Students delve into specific topics in private equity, venture capital, hedge funds, mutual funds and principal investing. Students can elect to take F319 graded or pass/fail. The Investments courses will make use of original case studies and teaching notes authored by the late Professor Jack McDonald and a team of course alumni from prior MBA classes. Case discussions and lecture discussions will be led by the teaching team and investors/principals who were involved. The Investments courses enable MBA students to learn a broad investing skillset and study the careers of outstanding investors.

**FINANCE 320. Debt Markets. 3 Units.**

This course is intended for those who plan careers that may involve debt financing for their businesses or other investments, or involve trading or investing in debt instruments and their derivatives, including money-market instruments, government bonds, repurchase agreements, interest-rate swaps, corporate bonds, structured credit products, and credit derivatives. We will emphasize the institutional features of the markets, including trading, pricing, and hedging. The course includes a focus on distressed debt and restructuring. Most lectures will start with a cold-called student presentation of an un-graded short homework calculation. There will also be a series of graded homework, a take-home mid-term, and about seven graded 'pop quizzes' of 10 minutes or less.

**FINANCE 321. Investment Management and Entrepreneurial Finance. 2 Units.**

The Investments courses comprise an intensive overview of active fundamental investing in both the public and private equity markets. They are relevant for students who intend to pursue careers in private or public equity investing, as well as those who want to better understand investing from the perspective of an entrepreneur or individual. The vast majority of sessions will feature an outstanding investor guest lecturer. Previous guests included Andreas Halvorsen (Viking Global), Jim Coulter (TPG), Hadley Mullen (TSG Consumer Partners), Ryan Cotton (Bain Capital), Bill Oberndorf (SPO Partners) and Tim Bliss (Investment Group of Santa Barbara), and this year's lineup will be substantially similar. Established and taught for 50 years by the legendary Professor Jack McDonald, the Investments courses will be taught by John Hurley, founder of Cavalry Asset Management and Professor Steve Grenadier in Autumn 2019. Students are required to take F319 and F321 concurrently for 5 total units during the Autumn Quarter. F321 is a 2-unit compressed course that meets MWF from 2:30-5:30pm during Weeks 1 and 8 of the quarter. It addresses real-world applications of business analysis and valuation tools and teaches the skills necessary to evaluate investment opportunities. F319 is a 3-unit course that meets Tu/Th 12:40-2:00 PM throughout the quarter. Students delve into specific topics in private equity, venture capital, hedge funds, mutual funds and principal investing. Students can elect to take F319 graded or pass/fail. The Investments courses will make use of original case studies and teaching notes authored by the late Professor Jack McDonald and a team of course alumni from prior MBA classes. Case discussions and lecture discussions will be led by the teaching team and investors/principals who were involved. The Investments courses enable MBA students to learn a broad investing skillset and study the careers of outstanding investors.

**FINANCE 326. Derivative Securities. 4 Units.**

This course is an introduction to options, futures and other derivative securities. The goal is to learn a core set of principles that underlie the pricing and use of derivatives. In particular, we will cover the valuation and use, both for risk management and for speculation, of forwards, futures, swaps, and options; the Black-Scholes option-pricing formula; delta-hedging; credit derivatives; financial risk management; and the role of derivatives in the recent financial crisis.

**FINANCE 327. Financial Markets. 4 Units.**

The aim of this course is to develop a thorough understanding of financial markets. We explore how investors make decisions about risk and return, how financial markets price risky assets in equilibrium, and how financial markets can sometimes malfunction. The course puts particular emphasis on the role of real-world imperfections that are absent from the standard textbook view of financial markets. For example, we explore the role of illiquidity: Why are there liquid markets for some types of assets but not for others? Why does liquidity often disappear in times of market turmoil? We will also study recent insights from behavioral finance about investor psychology and market inefficiencies. Moreover, we will look at financial innovations such as credit-default swaps, securitization, and hedge funds that play important roles in financial markets these days. We use cases to develop these topics in the context of practical decision-problems in the areas of asset allocation, risk management, and financing.

**FINANCE 329. Investment Seminar. 3 Units.**

See FINANCE 321 course description.

**FINANCE 331. Practical Corporate Finance. 4 Units.**

(Note: this course was formerly known as FIN 230) The main aim of this course is to enable students to apply the fundamental ideas of finance to problems in the area of corporate finance with all the complexities the real world entails. The course is a follow-up to the Fall Managerial Finance course where students learnt basics of valuation techniques and various finance applications. We will explore both how to make all this knowledge practical as well as how to deepen our knowledge of fundamental finance ideas. The main focus of this course is on the corporate financial manager and how he/she reaches decisions as to investments, dividends and financing of all sorts. Topics include leveraged buyouts, hostile takeovers, private equity financing and venture capital, financial distress and bankruptcy, mergers and acquisitions, managing working capital. The cases will be used to motivate our discussion of how to bridge the gap between rigorous finance theory and its application to practical problems in corporate finance. The course is case-based and more advanced than FINANCE 324. "Advanced" means that we will discuss a lot of subtle qualitative issues as well as explore deeper fundamental applications of core finance ideas. The course is intensive and will require students to prepare carefully all cases, read and understand a lot of materials, and actively participate in the class discussion. The main teaching method is cold calling.

Same as: Accelerated

**FINANCE 332. Finance and Society. 3 Units.**

This interdisciplinary course explores the economic, political, and behavioral forces that shape the financial system and, through this system, have a major impact on the economy and society. You will gain an in-depth understanding of how the complex interactions between individuals, corporations, governments, and the media can help markets work or, in turn, generate governance failures and inefficiencies. Visitors with varied experiences will enrich our discussions of key questions about the workings of capitalism in liberal democracies.

**FINANCE 333. Financial Restructuring. 3 Units.**

This course provides an intensive overview of financial restructuring transactions and processes from the perspective of distressed firms and their key stakeholders. It is intended for those who plan careers in general management, private equity, credit and special situations investing, banking, turnaround management, or financial advisory services. The course examines how companies may use in-court or out-of-court tools and processes to renegotiate their key contracts with creditors and other stakeholders when they encounter challenging business situations. Students will explore the financial, strategic, and legal implications of workouts, bankruptcies, asset/363 sales, and exchange offers, as applied in the context of financially distressed companies. Topics include valuation, absolute priority, creditor committees, intercreditor conflicts, debtor-in-possession (DIP) financings, 'blocking' strategies, avoidance powers, contingent claims, tax considerations, international insolvency, and distressed investment strategy. In exploring these topics, the course focuses on the key legal and contractual rights that creditors and other counterparties possess, and how they may use these rights to optimize their negotiated outcomes in a restructuring. Students will gain the tools to identify distress before it occurs, analyze distressed companies, and design restructuring plans which create enterprise value while navigating various considerations. They will also gain an understanding of how to structure financial obligations upon origination in a way to lower the probability of financial distress. Finally, the course will examine the purpose of bankruptcy design and future policy implications. The course is lecture-focused in the beginning, but will become more interactive and case-focused later in the course as students acquire the skills they need to tackle key issues. Grading will be based upon class participation (50%), and a paper due at the end of the quarter (50%). For the paper, each student will select a distressed company currently in the market and design a restructuring plan for it.

**FINANCE 335. Corporate Valuation, Governance and Behavior. 4 Units.**

This course will develop a detailed knowledge of corporate valuation techniques, together with an understanding of the role such valuations play in a wide range of corporate financing decisions. First, the course will carefully consider different valuation techniques, the assumptions that underlie each of these methods, how they are applied in practice, how they are related to one another, and how to decide which method of valuation is appropriate for a given application. After developing these tools, they will then be applied to a wide range of corporate finance settings. Among the applications to be considered are mergers and acquisitions, international valuation, corporate governance, financial distress, agency conflicts, asymmetric information, and overvaluation. For all of these applications, this course will emphasize the central importance of valuation to understanding observed phenomena and to guiding optimal decision making, as well as the unique challenges to valuation posed by the particular application.

**FINANCE 336. The Finance of Retirement and Pensions. 4 Units.**

The financial economics of how retirement is financed, particularly in the US. Topics: basic finance concepts necessary for understanding individual retirement savings. Properties of financial instruments such as bonds and stocks. Optimization of individual retirement account or 401(k) portfolios. Defined benefit pensions. Measuring defined benefit pension liabilities. Impact of defined benefit pension liabilities on corporate, state, and local budgeting. The economics of national retirement policy including Social Security and government treatment of private retirement savings.

**FINANCE 341. Modeling for Investment Management. 3 Units.**

This course will combine practical and up-to-date investment theory with modeling applications. Understanding beautiful theory, without the ability to apply it, is essentially useless. Conversely, creating state-of-the-art spreadsheets that apply incorrect theory is a waste of time. Here, we try to explicitly combine theory and application. The course will be divided into 6 modules, or topics. The first day of each module will be a lecture on an investment topic. Also provided is a team modeling project on the topic. The second day of each module will be a lab. The lab day will begin with modeling concepts (tips) designed to help you use Excel to implement the module's investment topic. After the tips are provided, the remainder of the lab day is devoted to teams working on their modeling project and allowing for Q&A. On the third day of each module will be presentations and wrap-up.

**FINANCE 345. History of Financial Crises. 3 Units.**

Financial crises are as old as financial markets themselves. There are many similarities between historical events. The crisis of 2008, for example, is far from unique. More often than not financial crises are the result of bubbles in certain asset classes or can be linked to a specific form of financial innovation. This course gives an overview of the history of financial crises, asset price bubbles, banking collapses and debt crises. We start with the Tulip mania in 1636 and end with the recent Euro crisis. The purpose of the course is to understand the causes of past crises and to develop a conceptual framework that ties common elements together. We will discuss the lessons that we can draw for financial markets today.

**FINANCE 346. Institutional Money Management. 3 Units.**

The object of this course is to study the money management industry from the perspective of the user — an investor who wants to invest money. This course will study the main components of the money management industry: mutual funds, hedge funds, private equity funds and venture capital funds. It will also examine important users of the industry such as non profits, endowments and defined benefit pension funds. The emphasis of the course will not be on how fund managers make money, but rather on how the industry is organized, how managerial skill is assessed, how compensation is determined, and how economic rents are divided between managers and investors. The course will explore how competitive market forces interact with managerial skill and other market frictions to give rise to the observed organization of the industry.

**FINANCE 347. Money and Banking. 3 Units.**

This course is designed to help students understand the connections between money (the Federal Reserve), financial markets, and the macroeconomy. How are interest rates determined, and how does the Federal Reserve conduct monetary policy? How do Federal Reserve actions impact the US as well as other economies? What economic factors drive the yield curves in different bond markets? We will pay particular attention to the banking system, with an eye toward understanding the function, valuation, and regulation of banks. We touch on a number of topics including the role of the Federal Reserve as a lender of last resort during financial crises, unconventional monetary policy tools such as quantitative easing and forward guidance, cryptocurrency, and emerging market financial crises. We will often begin class with a discussion of current macro-financial market events in the context of our course coverage.

**FINANCE 350. Corporate Financial Modeling. 4 Units.**

This course will expose students to the fundamentals, best practices, and advanced techniques of corporate financial modeling. We begin with basic operating and integrated financial statement models, and ultimately develop financial models to analyze major corporate transactions, including venture capital funding, mergers and acquisitions, and leverage buyouts. We will integrate theories presented throughout the MBA core, particularly those from accounting and finance, and take a hands-on approach to understand how the theory is implemented in practice. The focus of the course will be on developing critical financial modeling skills, understanding best practices, and recognizing common pitfalls. Students will work on a series of cases and build models that can be used for earnings and pro-forma financial statement forecasts, valuation, the assessment of financing needs, merger analysis, and LBO evaluation. Students will also gain experience presenting financial models and critically assessing them. By the conclusion of the course, students will develop the skills to construct complex financial models and the logical frameworks to utilize them for various organizational applications.

**FINANCE 351. Advanced Corporate Financial Modeling. 4 Units.**

Students will engage in the development of corporate financial modeling cases and solutions. Students will also develop materials to aid others in building financial models, and serve as case leaders during lab workshops. Extensive background in financial modeling and experience with Excel is required.

**FINANCE 361. Behavioral Finance. 4 Units.**

This course provides an introduction to behavioral finance, a discipline which integrates insights from psychology into the study of financial decisions and markets. There will be a focus on understanding the psychological underpinnings of financial decision-making as well as the institutional frictions that may allow these psychological mechanisms to influence economic outcomes. Applications include the pricing of assets relative to fundamental value, trading strategies, managerial behavior, and household savings and investment decisions. Conceptual issues will be emphasized through a mix of case discussions and lectures, and quantitative exercises will serve to develop analytical tools for making financial choices.

**FINANCE 362. Financial Trading Strategies. 3 Units.**

The purpose of this course is to familiarize students with the different types of trading strategies employed by various money management institutions. These financial trading strategies are used to manage the risk and return profiles of specific portfolios. Throughout the sessions, students will be challenged to understand and explore the application and implementation of these different strategies. Trading simulations employed on the Rotman Interactive Trader and Rotman Portfolio Manager (using real market data and computer generated data) will be used extensively in this course as a way to learn and test different strategies. All classes will be held in the new Real-time Analytics and Investment Lab (RAIL), located on the third floor of the Bass Building (B312). Students are expected to attend all sessions. Grades are based on in-class simulation results, class participation, and two written assignments.

**FINANCE 373. Entrepreneurial Finance. 3 Units.**

This is a course about the financial decision-making process largely from the point of view of the CEO of an entrepreneurial venture, ranging from very early to very late stages. The course takes a two-pronged approach: First, we develop tools and concepts of corporate finance related to modeling, valuation, control, and investment decisions within an entrepreneurial context. Second, we use cases with firms at different stages of their life cycles from initial angel or venture capital investments through exit decisions, in order to see the issues that arise when these principles are applied in practice. In some cases we show the viewpoint of the entrepreneur and in others the perspective of the investor. After all, as an entrepreneur, one cannot negotiate effectively without understanding an investor's motivations. Conversely, an investor cannot evaluate a potential investment opportunity without appreciating the entrepreneur's perspective and incentives. Finally, we explore new developments in entrepreneurial finance such as crowdfunding and early liquidity provisions.

**FINANCE 377. China's Financial System. 3 Units.**

This course is a survey of China's financial system, including its banking industry, monetary policy structure, and financial markets (bonds, derivatives, equities, foreign exchange, alternative asset management, and related markets). The goal is an integrated view of how capital, risk, and liquidity are intermediated within China and cross-border. Current trends (including liberalization of markets and financial stability) will be emphasized. Coverage will be through lectures, reading of research, including primary source documents and secondary (journalistic and analyst) commentary. There will be a range of subject-matter-expert speakers. Using our special video-technology enabled classrooms at Stanford and at the Stanford Center at PKU, this course is able to draw live speakers in Beijing and to meet jointly with students at Beijing University. Students will participate actively in class discussion, make a 5-minute (per student in each group) research presentation, and submit a 10-page term paper.

**FINANCE 381. Private Equity in Frontier Markets: Creating a New Investible Asset Class. 4 Units.**

In 2001, Jim O'Neil of Goldman Sachs wrote a research note which underscored the importance of so-called Emerging Markets to a well-balanced investment portfolio. Still today, most investors have little or no investment exposure beyond North America, Europe, Japan and more recently India, China and Brazil. All of this is just beginning to change. The not yet fully formed investment category called frontier market private equity is emerging and within the next decade is likely to be an asset class of its own. Private equity investments are being made in southeast Asia, in MENA (Middle East/ North Africa), in sub-Saharan countries beyond South Africa and in Latin America. Even fund of funds are appearing across these markets. At the same time, investors face a world of diminished returns expectations in developed economies just as aging demographics and the need for continued growth, innovation and infrastructure renewal places increasing demands for payout. Suffice it to say, investors will be looking beyond traditional asset classes and geographies for sources of return. This new course is designed to expose you to the still emerging, not yet fully formed world of frontier market private equity. To set the context we will start by reviewing the fundamentals of economic growth and development globally. In addition we will discuss the fundamental concepts involved in constructing and evaluating the performance of a large scale investment portfolio. We will then review cases on the elements of the private equity cycle/process and specifically address the special demands of frontier markets in general. We will also focus on issues that are specific to various markets (e.g. Nigeria, Vietnam, etc.). Students taking the course will be given the opportunity to make important contributions to the knowledge base of this still very young field by working in small teams to research topics of personal and general interest, the results of which will be reported to the rest of the class. This course will not be offered next academic year, 2017-2018.

**FINANCE 385. Angel and Venture Capital Financing for Entrepreneurs and Investors. 3 Units.**

This course covers all the stages of funding for early stage high-growth companies, from seed funding to venture capital rounds to a successful exit. We will concentrate on how entrepreneurs and investors make and should make important decisions. Examples of issues that we will cover are: How can entrepreneurs raise funding successfully? What are typical mistakes entrepreneurs make in raising capital and negotiating with investors? How to choose your investor? How to pitch to an investor? How do angels and VCs generate and process their deal flow and select companies? How are VCs involved in business decisions such as recruiting talent and replacing CEOs? What are the important provisions of financial contracts between VCs and founders? How to value early-stage companies? The course is very applied and mostly case-based. We will discuss a lot of nitty-gritty details that is a must for founders and investors. Case protagonists, founders, angels, and VCs will be among guest speakers. No prior knowledge of the VC industry is needed.

**FINANCE 548. The Political Economy of Banking Regulation in US and Europe. 1 Unit.**

The 2007-09 financial crisis exposed the extreme fragility of the financial system and the harm financial crises can cause. Have regulatory reforms in the US and Europe been effective and, if not, how and why? Does it matter if some institutions are "too big to fail," and, if so, how and why? This course will discuss the economic and political forces that are shaping the financial system in US and Europe and evaluate recent and current events that will have important implications for the economy for many years. We will see how politics trumps economics in Washington, London and Brussels in different but broadly predictable ways.

**FINANCE 555. Private Wealth Management and Personal Investing. 2 Units.**

The Private Wealth Management and Personal Investing course will address issues that relate to the management of personal assets as opposed to institutional investing. Many investment courses at the GSB emphasize large institutional portfolios but this course is about portfolio decisions for individuals. It will cover the origins and growth of private wealth management as an industry, investment planning, risk management, inter-generational transfers of wealth, choice of wealth advisors and philanthropy. Special emphasis is on understanding how wealth managers may be evaluated, including potential conflicts of interest, and performance measurement. Classes will focus on case studies and various readings. Each class will include visits from professionals in the wealth management and personal investing business. Active class participation and a group project are required.

**FINANCE 559. The World of Investing. 1 Unit.**

This course is a speaker series, exposing students to the world of first-class investors and their philosophies. Each week will have a different visitor describing their investment strategy and experience. Attendance at all sessions is a requirement to pass the course.

**FINANCE 562. Financial Trading Strategies. 2 Units.**

The purpose of this course is to familiarize students with the different types of trading strategies employed by various money management institutions. These financial trading strategies are used to manage the risk and return profiles of specific portfolios. Throughout the sessions, students will be challenged to understand and explore the application and implementation of these different strategies. Trading simulations employed on the Rotman Interactive Trader and Rotman Portfolio Manager (using real market data and computer generated data) will be used extensively in this course as a way to learn and test different strategies. All classes will be held in the new Real-time Analytics and Investment Lab (RAIL), located on the third floor of the Bass Building (B312). Students are expected to attend all sessions. Graded are based on in-class simulation results, class participation, and two written assignments. This course is designed to have a fast learning curve and is a pre-requisite for FIN563, the advanced extension of this course.

**FINANCE 563. Financial Trading Strategies 2. 2 Units.**

This course is an extension of FIN562, Financial Trading Strategies. Students will expand on introductory topics from the Financial Trading Strategies Course and be required to build extensive live-market models and risk management models. Class discussions will closely link current market events and pricing anomalies to theoretical and simulated markets and we will closely study the deviations between them.

**FINANCE 587. Private Equity - An Overview of the Industry. 2 Units.**

This 2-unit elective at the GSB is an "Overview" of the private equity industry including its reason for being, its growth and the various strategies for success that private equity firms employ. The course looks at all aspects of private equity partnerships and private equity investing. The course may be of particular interest to five groups of students: (i) students who aspire to be employed in private equity as a career; (ii) students who plan to be employed by companies that are owned by private equity firms; (iii) students who may invest in private equity partnerships as a limited partner; (iv) students who find private equity to be an interesting part of the financial services industry, and (v) students who expect to participate in corporate business development or mergers and acquisitions. The course will meet for nine classes. Each class will have at least one senior partner from a private equity firm to comment on the activities of his firm. In years past, some of the true leaders of the industry have participated. One class will be a mock investment review committee presentation as a final project.

**FINANCE 620. Financial Markets I. 3 Units.**

This course is an introductory PhD level course in financial economics. We begin with individual choice under uncertainty, then move on to equilibrium models, the stochastic discount factor methodology, and no-arbitrage pricing. We will also address some empirical puzzles relating to asset markets, and explore the models that have been developed to try to explain them.

**FINANCE 621. Financial Markets II. 3 Units.**

This course continues F620 and covers a number of main concepts in market microstructure. Among the topics that are covered are (i) Rational Expectations models and their foundations (ii) strategic trading models (iii) models of market and funding liquidity. In addition to the discussion of theoretic models time will be allotted to empirical applications.

**FINANCE 622. Dynamic Asset Pricing Theory. 4 Units.**

This course is an introduction to multiperiod models in finance, mainly pertaining to optimal portfolio choice and asset pricing. The course begins with discrete-time models for portfolio choice and security prices, and then moves to a continuous-time setting. The topics then covered include advanced derivative pricing models, models of the term structure of interest rates, the valuation of corporate securities, portfolio choice in continuous-time settings, and finally finally market design. Students should have had some previous doctoral-level exposure to general equilibrium theory and some basic courses in investments. Strong backgrounds in calculus, linear algebra, and probability theory are recommended. Problem assignments are frequent and, for most students, demanding. Prerequisite: F620 and MGTECON600 (or equivalent), or permission of instructor.

**FINANCE 624. Corporate Finance Theory. 4 Units.**

This course considers a wide range of topics in theoretical corporate finance (broadly interpreted). Topics include capital structure decisions, agency conflicts in the firm, dividend policy, security design, optimal financial contracting, the theory of the firm, the market for corporate control, and banking and financial intermediation, among others. The primary focus is on how asymmetric information, agency conflicts, strategic interactions, and incomplete contracting affect corporate financial decision-making. The course aims both to familiarize students with influential papers and current research, and to promote new research ideas in the area.

**FINANCE 625. Empirical Asset Pricing. 3 Units.**

This course is an introduction to empirical research in asset pricing. The focus of the course is on the interplay between financial economic theory, econometric method, and that analysis of financial market data. Topics include tests of asset pricing models, return predictability in time-series and cross-section, empirical studies of asset market imperfections, and studies of individual and professional investor behavior. Class discussions will draw on textbooks/monographs and original articles and working papers.

**FINANCE 626. Advanced Corporate Finance. 3 Units.**

This is a course on contemporary theoretical and empirical issues in corporate finance. Building upon the first-year courses in corporate finance theory and empirical methods in finance, we will examine issues in asset pricing applications to corporate finance, dynamic capital structure (dynamic financing decisions), financial distress, financing and investment interactions, and behavioral corporate finance. Both conceptual economic frameworks and econometric methods will be developed as needed. A requirement for this course is that students complete two written projects, one theoretical and one empirical, and at least one of these projects will be presented to the class.

**FINANCE 627. Venture Capital and Finance of Innovation. 3 Units.**

In this course we will study the theory and empirics of venture capital (VC) and, more broadly, finance of innovation. We will start by reviewing the way the VC and related markets function and then will dive into such topics as VC contracting, valuation, and impact on innovation. We will review most important research studies published in the field over the past 20+ years and pay particular attention to recent research.

**FINANCE 628. Finance Pre-Seminar Reading Course. 1 Unit.**

Finance Pre-Seminar Reading.

**FINANCE 630. Empirical Corporate Finance. 3 Units.**

This course provides an introduction to empirical research in corporate finance, with an emphasis on the application of cross-sectional and panel data econometric techniques for causal inference. Topics include investment policy, entrepreneurship and innovation, financing decisions, firm ownership, corporate governance, managerial incentives, financial contracting, and the structure and internal organization of firms. The course assumes knowledge of econometrics at the level of MGTECON 603.

**FINANCE 632. Empirical International Finance. 3 Units.**

This is an advanced graduate-level course in international finance and macroeconomics. The course focuses on empirical methods, stylized facts, new advances in large-scale empirical work, and applied theory. This course is targeted to advanced second year PhD students. The course assumes familiarity with the basics of graduate-level macroeconomics and finance. Students without the necessary familiarity with these techniques are welcome to take the course, but should expect to have to fill the gaps on their own (and with the help of their classmates!). Given the target audience above, the course has three main objectives. 1) To introduce and investigate both classic and new economic issues at the frontier of current research in international finance and macroeconomics. The purely pedagogical part of the course aims to make students familiar with the questions, the current state of research, and the empirical tools currently being used. 2) To create a mental framework and intuitive understanding of important and active questions. What makes a question interesting? What makes a paper a good paper? How to develop a reasoned view of new (and perhaps yet un-studied) issues in international finance and macroeconomics? This objective is less direct and less formal, but aims to transition the students into full-time researchers. 3) To kick-start students on independent research. For those interested in applied work the course makes you familiar and tries to connect you with existing data at the frontier of the field, both public and proprietary. For those interested in theoretical work the course staff acts as a sounding board for early research ideas.

**FINANCE 633. Advanced Empirical Corporate, Banking and Household Finance. 3 Units.**

This course discusses empirical aspects of major topics in corporate finance, household and consumer finance, housing, banking, financial regulation as well as political economy. The course is designed for students doing their PhD in finance, economics and accounting. The class is very interactive.

**FINANCE 635. Advanced Topics in Empirical Asset Pricing. 3 Units.**

This course will survey current research topics in empirical asset pricing. The emphasis will be on giving students exposure to active research areas and open questions rather than well-established areas and empirical techniques. Topics may include liquidity, capital market frictions, money management, volatility, investment-based asset pricing, return predictability, bubbles, and consumption-macro asset pricing models.

**FINANCE 637. Macroeconomics and Financial Markets. 3 Units.**

This PhD course will cover research topics at the boundary between macroeconomics and finance. Topics will include the study of macroeconomic models with financial frictions, the term structure of interest rates, conventional and unconventional monetary policy, sovereign debt crises, search frictions and segmentation in housing markets, (over)leveraging by households, heterogeneous expectations, excess volatility, financial bubbles and crises. Student presentations and course paper requirement. Designed for second year PhD students in economics or finance.

**FINANCE 691. PhD Directed Reading. 1-15 Unit.**

This course is offered for students requiring specialized training in an area not covered by existing courses. To register, a student must obtain permission from the faculty member who is willing to supervise the reading.

Same as: ACCT 691, GSBGEN 691, HRMGT 691, MGTECON 691, MKTG 691, OB 691, OIT 691, POLECON 691, STRAMGT 691

**FINANCE 692. PhD Dissertation Research. 1-15 Unit.**

This course is elected as soon as a student is ready to begin research for the dissertation, usually shortly after admission to candidacy. To register, a student must obtain permission from the faculty member who is willing to supervise the research.

Same as: ACCT 692, GSBGEN 692, HRMGT 692, MGTECON 692, MKTG 692, OB 692, OIT 692, POLECON 692, STRAMGT 692

**FINANCE 698. Doctoral Practicum in Teaching. 1 Unit.**

Doctoral Practicum in Teaching.

**FINANCE 699. Doctoral Practicum in Research. 1 Unit.**

Doctoral Practicum in Research.

**FINANCE 802. TGR Dissertation. 0 Units.**

Same as: ACCT 802, GSBGEN 802, HRMGT 802, MGTECON 802, MKTG 802, OB 802, OIT 802, POLECON 802, STRAMGT 802