FINANCE (FNCE)

FNCE 100 Corporate Finance
This course provides an introduction to the theory, the methods, and the concerns of corporate finance. The concepts developed in FNCE 100 form the foundation for all elective finance courses. The main topics include: 1) the time value of money and capital budgeting techniques; 2) uncertainty and the trade-off between risk and return; 3) security market efficiency; 4) optimal capital structure, and 5) dividend policy decisions. During the Fall semester there are honors sections of FNCE 100 offered. The seats in the honors sections are awarded through an application process. Please go to: https://fnce.wharton.upenn.edu/programs/course-applications for additional information.
Prerequisites: ECON 010 or ECON 001 or ECON 002, MATH 104, or MATH 110, ACCT 101 and STAT 101. Acct 101 and Stat 101 may be taken concurrently.
Activity: Lecture
1 Course Unit

FNCE 101 Monetary Economics and the Global Economy
FNCE 101 is an intermediate-level course in macroeconomics and the global economy, including topics in monetary and international economics. The goal is to provide a unified framework for understanding macroeconomic events and policy, which govern the global economic environment of business. The course analyzes the determinants and behavior of employment, production, demand and profits; inflation, interest rates, asset prices, and wages; exchange rates and international flows of goods and assets; including the interaction of the real economy with monetary policy and the financial system. The analysis is applied to current events, both in the US and abroad. HONORS FNCE 101 is only offered in the Fall semester. Registration for this class is through an application process. Please go to: https://fnce.wharton.upenn.edu/programs-course-applications, This course presents the analysis of macroeconomic theory with a current events perspective. The material in the class concentrates on lecture notes, which are the primary learning source, and readings from a course packet of articles drawn from journals, magazines, newspapers, and other economic publications.
Prerequisites: ECON 010 or ECON 001 or ECON 002, MATH 104, or MATH 110, ACCT 101 and STAT 101. Acct 101 and Stat 101 may be taken concurrently.
Activity: Lecture
1 Course Unit

FNCE 203 Advanced Corporate Finance
The objective of this course is to study the major decision-making areas of managerial finance and some selected topics in financial theory. The course reviews the theory and empirical evidence related to the investment and financing policies of the firm and attempts to develop decision-making ability in these areas. This course serves as an extension of FNCE 100 (FNCE 611). Some are as of financial management not covered in FNCE 100 are covered in FNCE 203. These may include leasing, mergers and acquisitions, corporate reorganizations, financial planning and working capital management, and some other selected topics. Other areas that are covered in FNCE 100 are covered more in depth and more rigorously in FNCE 203. These include investment decision making under uncertainty, cost of capital, capital structure, pricing of selected financial instruments and corporate liabilities, and dividend policy. During the Spring semester, Professor Opp does not allow students to take this course pass/fail.
One-term course offered either term
Prerequisites: FNCE 100, (FNCE 611), STAT 101, and STAT 102.
Activity: Lecture
1 Course Unit
Notes: Professor Opp's sections may not be taken Pass/Fail.

FNCE 205 Investment Management
This course studies the concepts and evidence relevant to the management of investment portfolios. Topics include diversification, asset allocation, portfolio optimization, factor models, the relation between risk and return, trading, passive (e.g., index-fund) and active (e.g., hedge-fund, long-short) strategies, mutual funds, performance evaluation, long-horizon investing and simulation. The course deals very little with individual security valuation and discretionary investing (i.e., "equity research" or "stock picking").
One-term course offered either term
Prerequisites: The prerequisites for Undergraduates are FNCE 100, and STAT 101, 102 (STAT 102 may be taken concurrently with this course. Given that investment management requires one to analyze and deal effectively with uncertainty, a good grounding in statistics is essential, and familiarity with statistics should extend through multiple regression, covariance, and correlation.
Activity: Lecture
1 Course Unit
FNCE 206 Financial Derivatives
This course covers one of the most exciting yet fundamental areas in finance: derivative securities. In the modern financial architecture, financial derivatives can be the most challenging and exotic securities traded by institutional specialists, while at the same time, they can also be the basic securities commonly traded by retail investors such as S&P Index Options. Beyond trading, the basic ideas of financial derivatives serve as building blocks to understand a much broader class of financial problems, such as complex asset portfolios, strategic corporate decisions, and stages in venture capital investing. The global derivatives market is one of the most fast-growing markets, with over $600 trillion notional value in total. It is important as ever to understand both the strategic opportunities offered by these derivative instruments and risks they imply. The main objective of this course is to help students gain the intuition and skills on (1) pricing and hedging of derivative securities, and (2) using them for investment and risk management. In terms of methodologies, we apply the non-arbitrage principle and the law of one price to dynamic models through three different approaches: the binomial tree model, the Black-Scholes-Merton option pricing model, and the simulation-based risk-neutral pricing approach. We discuss a wide range of applications, including the use of derivatives in asset management, the valuation of corporate securities such as stocks and corporate bonds with embedded options, interest rate derivatives, credit derivatives, as well as crude oil derivatives. In addition to theoretical discussions, we also emphasize practical considerations of implementing strategies using derivatives as tools, especially when no-arbitrage conditions do not hold.

One-term course offered either term
Prerequisites: The following introductory Finance and Statistics courses are recommended but not required. FNCE 101 and STAT 102 are recommended and can be taken concurrently.
Activity: Lecture
1 Course Unit

FNCE 207 Corporate Valuation
The focus of this course is on the valuation of companies. The course covers current conceptual and theoretical valuation frameworks and translates those frameworks into practical approaches for valuing companies. The relevant accounting topics and the appropriate finance theory are integrated to show how to implement the valuation frameworks discussed on a step-by-step basis. The course teaches how to develop the required information for valuing companies from financial statements and other information sources in a real-world setting. Topics covered in depth include discounted cash flow techniques and price multiples. In addition, the course covers other valuation techniques such as leveraged buyout analysis.

Taught by: Professor Holthausen in the fall and Professor Glode in the spring. Professor Glode course may not be taken Pass Fail, it must be taken for a grade.
One-term course offered either term
Prerequisites: FNCE 100, (FNCE 611) ACCT 101, AND STAT 101, 111 OR EQUIVALENT ACCT 201 RECOMMENDED
Activity: Lecture
1 Course Unit

FNCE 208 International Corporate Finance
Analyzes financial problems corporations face that result from operating in an international environment. Major topics include managing exchange risk through hedging and financing, measuring exchange rate exposure, calculating the cost of capital for foreign operations, assessment of sovereign risks, capital budgeting from a project and parent perspective, and international taxation.
Prerequisites: A thorough knowledge of FNCE 100 (FNCE 611) is assumed.
Activity: Lecture
1 Course Unit

FNCE 209 Real Estate Investment: Analysis and Financing
This course provides a broad introduction to real estate with a focus on investment and financing issues. Project evaluation, financing strategies, investment decision making and real estate capital markets are covered. No prior knowledge of the industry is required, but students are expected to rapidly acquire a working knowledge of real estate markets. Classes are conducted in a standard lecture format with discussion required. The course contains cases that help students evaluate the impact of more complex financing and capital market tools used in real estate. There are case studies and two midterms, depending on instructor.
Taught by: Ferreira, Handbury, Harari, Keys, Sinai, Wong
One-term course offered either term
Prerequisite: FNCE 100
Activity: Lecture
1 Course Unit

FNCE 219 International Financial Markets
FNCE 219 is a course on international financial markets. Major topics include foreign exchange rates, international money markets, currency and interest rate derivatives (forwards, options, and swaps), international stock and bond portfolios, and cryptocurrencies. Students learn about the features of financial instruments and the motivations of market participants. The class focuses on risk management, investing, and arbitrage relations in these markets.
One-term course offered either term
Prerequisites: The following introductory courses are recommended but not required. FNCE 100, FNCE 101, STAT 101.
Activity: Lecture
1 Course Unit

FNCE 220 International Banking
This course focuses on international financial institutions, especially the activities of global, systemically important banks. We will examine how current and historical events are reshaping the industry and highlight the basic analytics of managing a bank’s exposure to liquidity, credit, market and reputational risk. Most classes will begin with discussion of a current event related to course topics. Three team projects will be assigned that will give you deeper exposure to analytic techniques related to the course. Throughout the semester, we will discuss public policy issues facing the international financial system.
Taught by: Professor Richard Herring
Course usually offered in spring term
Prerequisites: FNCE 100, FNCE 101, one of which may be taken concurrently.
Activity: Lecture
1 Course Unit
FNCE 230 Urban Fiscal Policy
The purpose of this course is to examine the financing of governments in the urban economy. Topics to be covered include the causes and consequences of the urban fiscal crisis, the design of optimal tax and spending policies for local governments, funding of public infrastructures and the workings of the municipal bond market, privatization of government services, and public financial systems for emerging economies. Applications include analyses of recent fiscal crises, local services and taxes as important determinants of real estate prices, the infrastructure crisis, financing and the provision of public education, and fiscal constitutions for new democracies using South Africa as an example.
Taught by: Robert Inman
Course usually offered in fall term
Prerequisites: FNCE 101 and ECON 001
Activity: Lecture
1 Course Unit

FNCE 235 Fixed Income Securities
This course covers fixed income securities (including fixed income derivatives) and provides an introduction to the markets in which they are traded, as well as to the tools that are used to value these securities and to assess and manage their risk. Quantitative models play a key role in the valuation and risk management of these securities. As a result, although every effort will be made to introduce the various pricing models and techniques as intuitively as possible and the technical requirements are limited to basic calculus and statistics, the class is by its nature quantitative and will require a steady amount of work. In addition, some computer proficiency will be required for the assignments, although familiarity with a spreadsheet program (such as Microsoft Excel) will suffice.
One-term course offered either term
Prerequisites: FNCE 100 and STAT 101 or STAT 102 or STAT 111
Activity: Lecture
1 Course Unit

FNCE 238 Capital Markets
The objective of this course is to give you a broad understanding of the framework and evolution of U.S. capital markets, the instruments that are traded, the mechanisms that facilitate their trading and issuance, and the motivations of issuers and investors across different asset classes. The course will highlight the problems that capital market participants are seeking to solve, which you can use in your post-Wharton careers to evaluate future market innovations. We will consider design, issuance, and pricing of financial instruments, the arbitrage strategies which keep their prices in-line with one another, and the associated economic and financial stability issues. We will draw from events in the aftermath of the recent financial crisis, which illustrate financing innovations and associated risks, as well as policy responses that can change the nature of these markets.
One-term course offered either term
Prerequisites: FNCE 100, (FNCE 611)
Activity: Lecture
1 Course Unit

FNCE 239 Behavioral Finance
There is an abundance of evidence suggesting that the standard economic paradigm - rational agents in an efficient market - does not adequately describe behavior in financial markets. In this course, we will survey the evidence and use psychology to guide alternative theories of financial markets. Along the way, we will address the standard argument that smart, profit-seeing agents can correct any distortions caused by irrational investors. Further, we will examine more closely the preferences and trading decisions of individual investors. We will argue that their systematic biases can aggregate into observed market inefficiencies. The second half of the course extends the analysis to corporate decision making. We then explore the evidence for both views in the context of capital structure, investment, dividend, and merger decisions.
Course usually offered in spring term
Prerequisites: FNCE 100, FNCE 101. Recommended: FNCE 205 and FNCE 203
Activity: Lecture
1 Course Unit

FNCE 250 Venture Capital and the Finance of Innovation
This course covers the finance of technological innovation, with a focus on the valuation tools useful in the venture capital industry. These tools include the "venture capital method," comparables analysis, discounted cash flow analysis, contingent-claims analysis. The primary audience for this course is finance majors interested in careers in venture capital or in R&D-intensive companies in health care or information technology.
Course usually offered in fall term
Prerequisites: FNCE 100 (FNCE 611) and FNCE 101 (FNCE 613); (FNCE 101 and FNCE 613 may be taken concurrently)
Activity: Lecture
1 Course Unit

FNCE 251 The Finance of Buyouts and Acquisitions
The course focuses on financial tools, techniques, and best practices used in buyouts (financial buyers) and acquisitions (strategic buyers). While it will touch upon various strategic, organizational, and general management issues, the main lens for studying these transactions will be a financial one. It will explore how different buyers approach the process of finding, evaluating, and analyzing opportunities in the corporate-control market; how they structure deals and how deal structure affects both value creation and value division; how they add value after transaction completion; and how they realize their ultimate objectives (such as enhanced market position or a profitable exit). The course is divided into two broad modules. The first module covers mergers and acquisitions, and the second one studies buyouts by private equity partnerships. During the spring semester this course cannot be taken pass/fail.
Prerequisites: FNCE 100 (FNCE 611), FNCE 101 (FNCE 613), Co-Requisite FNCE 203 (FNCE 726) Advanced Corporate Finance or FNCE 207 (FNCE 728) Corporate Valuation.
Activity: Lecture
1 Course Unit
Notes: Lectures, cases, and guest speakers. Grading: Class participation, two students projects, two exams.
FNCE 254 Impact Investing
This course explores Impact Investing, a discipline that seeks to generate social benefits as well as financial returns. From tiny beginnings, the Impact Investment space has expanded and now commands significant attention from policymakers, wealthy and public-spirited individuals, academia and, not least, the world’s largest asset managers and philanthropic foundations. Evangelists believe it may be the key to freeing the world from poverty. Skeptics think it will remain confined to the boutique. Regardless, Impact Investing is becoming a distinct career specialization for finance professionals despite the diverse skillset each must have and the uncertainty of the new field’s growth.
Prerequisites: Prerequisites: This course has no specific prerequisites, but given its wide-ranging subject matter, students will benefit from completion of any of the following Wharton courses: FNCE 101 Monetary Economics and the Global Economy; FNCE 205 Investment Management; FNCE 238 Capital Markets; and FNCE 395 Private Equity. Coursework or practical experience in microeconomics, development economics, international philanthropy, Non-Governmental Organizations, financial risk management and political risk analysis will also be useful.
Activity: Lecture
1 Course Unit

FNCE 256 Finance Energy
The objective of this course is to provide students with detailed knowledge of corporate structures, valuation methods, project finance, risk management practices, corporate governance issues, and geopolitical risks in the energy industry. In general, this course seeks to provide students with an overall context for understanding energy issues and risks, and how these might affect financing and investment decisions for both providers of energy and end-users of energy.
Taught by: Professor Erik Gilje
Course usually offered in spring term
Prerequisites: FNCE 203, Advanced Corporate Finance or FNCE 207, Corporate Valuation. Students that receive permission to enroll without the prerequisites are expected to review the relevant topics as necessary to meet the requirements of the class.
Activity: Lecture
1 Course Unit

FNCE 311 Infrastructure Investing
The world economy runs on the infrastructure which has been built over the past 10,000 years. Each year, this infrastructure requires updating and new additions, from roads and bridges (the original infrastructure), to railroads, airports (the more recent infrastructure), to telecommunications and solar and wind power installations (modern infrastructure). There is a vast amount of public (i.e., taxpayer money directed by government officials) and private (i.e., individuals’ money typically managed on their behalf and directed by private equity or banks into infrastructure investments). In this course, we will cover Infrastructure Financing and investing from various angles. We will provide descriptions of types of infrastructure, examine the financing needs of infrastructure projects, consider the historic role of government and non-government funding, and assess the changing needs of consumers and role of technology and the increasing demands posed by a globalizing economy. As private equity firms continue to build infrastructure funds, the need for, and role for, private money continues to evolve, so we will also examine infrastructure investing as an alternative asset class from the investors’ perspective.
Taught by: Professor Kevin Kaiser
Prerequisites: FNCE 100 Corporate Finance; FNCE 207 Corporate Valuation is recommended but not required.
Activity: Lecture
0.5 Course Units

FNCE 383 Strategic Equity Finance
This course combines lectures and cases, and will go through actual situations where companies need to make strategic decisions on raising equity capital. We will address different phases of a company’s life cycle. Through these cases, from the decision-makers perspective, we will explore the different paths that can be taken and consider issues such as investor activism, governance and regulatory and valuation impact.
FNCE 383 is a half semester course offered in Q3 during the spring semester.
Taught by: Professor David Musto and Professor David Erickson
Course usually offered in spring term
Prerequisite: FNCE 100 - Corporate Finance
Activity: Seminar
0.5 Course Units

FNCE 384 Advanced Topics in Private Equity
This course will address a variety of applied topics in private equity (PE), with a focus on growth and later-stage buyout transactions (venture capital is not explicitly addressed in this course), and a primarily U.S.-centric view that should be largely applicable in other markets. In addition, the course will focus on the transaction stage of PE investing i.e., the art of the deal and mostly leave aside deal sourcing, portfolio management and investor relations. The goal of this course is to educate students about the substance, process and mechanics of PE investing, through the lens of the investment professionals, counterparties and advisors that drive transactions to completion. Course topics will address the entire deal process, and will include the following: Commercial Diligence (incl. financial modeling); Debt Financing; Accounting Diligence; Sales & Purchase Agreements; Comps Analysis; and Other Advisory Work. Throughout the course, students will learn about each element of the deal process through in-class lectures, while concurrently apply those learnings to a real-time mock deal, and preparing dealmaterials that mirror a real private equity transaction. The in-class lectures will cover both conceptual frameworks and real-world examples.
Taught by: Bilge Yilmaz and Burcu Esmer
Prerequisites: Successful completion of core finance requirements, FNCE 100 and FNCE 101 as well as FNCE 203 or FNCE 251. Special permission can also be requested based on relevant professional experience.
Activity: Lecture
1 Course Unit

FNCE 385 ASP - Fin-Tech
The course exposes students to this fast-growing and exciting intersection between finance (Fin) and technology (Tech) while emphasizing the role data and analytics play. The course is structured around three main FinTech areas: (i) Lending/Banking services, (ii) Clearing (iii) Trading. It provides specific coverage and examples of developments from (1) peer-to-peer lending, (2) blockchain and distributed ledgers, (3) networks and their use in trading, and (4) algo trading and its use of non-standard inputs. In each of these areas, we start by analyzing the marketplace, and the incumbents, and the business case and strategies of the incoming technology-based players, while understanding the role data and analytics play in driving the technology-based services. The course is built around a large number of examples and cases, guest lectures, student presentations, and group projects. Student are thus expected to work in teams and demonstrate a high level of independent learning and initiative.
Prerequisites: A thorough knowledge of FNCE 100 is assumed.
Activity: Lecture
0.5 Course Units
FNCE 386 ASP - Hedge Funds
This course will cover critical aspects and characteristics of hedge funds and the hedge fund industry. It will look at the legal foundations and structures of hedge funds including the primary regulations in the U.S. and abroad that are most relevant for hedge funds. It will also present the major hedge fund strategies, describe operation, control, administration, due diligence and valuation issues. Performance evaluation and investing in hedge funds from the investor’s perspective will be discussed as will be issues of potential changes in regulation, risk management, and the use of leverage. The format of the course will mix lectures with presentations from industry participants, hedge fund managers, those who invest in hedge funds, those who advise them and provide services to them, and those who regulate them. Those who want to launch a hedge fund, join an existing one, invest in one, or provide services to one will want to register for this course.

Taught by: Professor Scott Richard
Course usually offered in fall term
Prerequisite: FNCE 100
Activity: Lecture
0.5 Course Units

FNCE 387 ASP - Shareholder Activism
The aim of the course is to provide an introduction to shareholder activism. The course makes use of lectures and case studies. The lectures expose the students to the institutional and empirical facts as well as approaches followed by leading shareholder activists. The case studies are designed to provide students an experience on identifying potential opportunity for value creation through active engagement. Assignments require students to develop/practice skills on fundamental analysis.

Taught by: Professor Bilge Yilmaz and Kevin Kaiser
Course usually offered in spring term
Activity: Lecture
0.5 Course Units

FNCE 391 CORPORATE RESTRUCTURING
This course familiarizes students with financial, strategic and legal issues associated with the restructuring of financially distressed firms. The objective is to give students tools necessary to deal with the often-complex situation facing a failing firm. The participants will gain a basic understanding of the various options available for distressed firms, such as out-of-court workouts, exchange offers, prepackaged and pre-negotiated bankruptcies, distressed asset sales, 363 auctions, and Chapter 11 reorganization. We will explore the difference between economic and financial distress, and the implications for the restructuring process. Since bankruptcy provides a threat point for any distressed restructuring, the course reviews key issues of the legal framework governing bankruptcy and reorganization in the U.S. and internationally. Finally, we will consider distressed debt as an asset class and develop techniques for investing in distressed securities.

The course is case based, providing ample opportunity to practice valuation of distressed companies, and hosts several guest speakers from the restructuring industry. It should be of interest for a range of careers, including private equity, investment banking, and turnaround management.

Prerequisites: The prerequisites for this course are FNCE 203 or 726 Advanced Corporate Finance or FNCE 207 or 728 Corporate Valuation. The purpose of the prerequisites is to ensure that students have a basic understanding of capital structure, and valuation methods, so that we spend more time on the nuances of distressed situations and less time on reviewing background material.

Activity: Lecture
1 Course Unit

FNCE 393 Policy Decisions by Central Banks: The Fed, the ECB and the BOI
Understanding and predicting central banking decision making and behavior is crucial for all market participants from asset managers and traders to private consumers. This course aims to provide the methods and knowledge on how central banks and governments think and implement policies to reach the goals of price and financial stability as well as support of growth and employment. The core of the course connects between the legal and actual goals that central banks follow and the related economic analysis on which these goals and policies are set. We explain the economic rationale for the policy prescriptions to reach the goals and how these policies are actually implemented by the Federal Reserve Bank (Fed) in the US, the European Central Bank (ECB), Bank of Israel (BOI) and some remarks on other countries. We use data, current events of the 2007-2018 period as the basis for discussion and assignments. All of these are aimed understanding how and why the Fed, the ECB and the BOI set their policies. For each we shall simulate in class current decisions based on assignment related to past policies and the theory presented in class.

Taught by: Professor Zvi Eckstein; Dean of Arison School of Business and Tiomkin School of Economics. Herzliya, Israel
Prerequisites: FNCE100, FNCE 101 and STAT101 or STAT 102
Activity Lecture
0.5 Course Units
Notes: Requirements; Final examinations (55%-passing grade is required); two out of three assignments (cases) done by teams of 3-4 students (20%); one group participation (10%); active participation in class discussion (15%)

FNCE 395 PRIVATE EQUITY
The course will be a survey of the private equity asset class. Its objective is to provide an understanding of the concepts, agents, and institutions involved in the late stage corporate private equity market in the U.S. and around the globe. It will examine the buyout market and the activities of buyout funds from the differing perspectives of private equity investors, private equity fund sponsors, and managers of the portfolio companies. The course will be taught almost entirely with cases. Distinguished Wharton alumni in the private equity industry will be our guest speakers for many of the cases based on transactions they concluded. PLEASE NOTE: While this course is primarily intended for graduate students, admission may be granted to a limited number of interested undergraduate students. Be aware that this course may be recorded for live or subsequent distribution, display, broadcast, or commercialization in any media, including video, audio, or electronic media. For additional information, see the course syllabus or contact the department. This is a Pass/Fail course and will not count towards your concentration.

Prerequisites: FNCE 203-Advanced Corporate Finance and FNCE 251-Finance of Buyouts and Acquisitions or permission from the professor
Activity Lecture
0.5 Course Units
FNCE 397 Finance In The Middle East & North Africa
This is a Wharton Global Modular Course on finance in the Middle East and North Africa. Its objective is to bring students, academics and industry experts together to study financial markets, practice, and institutions in this region.
Taught by: Professor Bulent Gultekin, Finance Department and Professor Michael J.T. McMillen, Penn Law School
Activity: Lecture
0.5 Course Units
Notes: Course Format - This course will be taught through cases and lectures. Guest Lecturers - Distinguished practitioners will lecture and conduct case discussions. Our guest lecturers will bring their experience and insights to the classroom.

FNCE 399 Supervised Study in Finance
Integrates the work of the various courses and familiarizes the student with the tools and techniques of research.
Prerequisites: Senior standing, 3.4 grade point average. Must be supervised by a Standing Faculty member in the Finance Department.
Activity: Independent Study
1 Course Unit

FNCE 611 Corporate Finance
This course serves as an introduction to business finance (corporate financial management and investments) for both non-majors and majors preparing for upper-level course work. The primary objective is to provide the framework, concepts, and tools for analyzing financial decisions based on fundamental principles of modern financial theory. The approach is rigorous and analytical. Topics covered include discounted cash flow techniques; corporate capital budgeting and valuation; investment decisions under uncertainty; capital asset pricing; options; and market efficiency. The course will also analyze corporate financial policy, including capital structure, cost of capital, dividend policy, and related issues. Additional topics will differ according to individual instructors.
Prerequisites: ACCT 611, 612, 613; MGEC 612, 611; STAT 613, 621 prerequisite or concurrent.
Activity: Lecture
1 Course Unit

FNCE 612 Accelerated Corp Finance
This course is intended for students with prior knowledge of finance or with strong analytical backgrounds. Together with the pre-term preparation course (FNCE604) the foundation for subsequent courses in corporate finance, corporate valuation, investments, and financial derivatives. Its purpose is to develop a framework for analyzing a firm's investment and financial decisions. This course will start where FNCE604 ends. More precisely, it will provide an introduction to capital budgeting techniques under uncertainty, asset valuation, the operation and efficiency of capital markets, the optimal capital structure and dividend policy of the firm and options. In short, it will cover all the topics of a typical semester-long finance introductory class in six weeks. This course assumes that students are familiar with the material covered in FNCE 604. As a result, it is only available to those students who successfully passed the Finance Placement Exam at the end of the pre-term. This course is not suitable for students new to finance and with limited analytical backgrounds. This course is hard. The pace is fast and it requires a major investment of time and effort outside class.
Activity: Lecture
0.5 Course Units
Notes: Q-1 Half Semester course

FNCE 613 Macroeconomics and the Global Economic Environment
This course is required for all students except those who, having prior training in macroeconomics, money and banking, and stabilization policy at an intermediate or advanced level, can obtain a waiver by passing an examination. The purpose of FNCE 613 is to train the student to think systematically about the current state of the economy and macroeconomic policy, and to be able to evaluate the economic environment within which business and financial decisions are made. The course emphasizes the use of economic theory to understand the workings of financial markets and the operation and impact of government policies. Specifically, the course studies the determinants of the level of national income, employment, investment, interest rates, the supply of money, inflation, exchange rates, and the formulation and operation of stabilization policies.
Activity: Lecture
1 Course Unit

FNCE 614 Corporate Finance ( Half CU)
This course serves as an introduction to corporate investments for non-majors. The primary objective is to provide a framework, concepts, and tools for analyzing financial decisions based on fundamental principles of modern financial theory. The approach is rigorous and analytical. Topics covered include discounted cash flow techniques, corporate capital budgeting and valuation, investment decisions under uncertainty, and capital asset pricing. This course will not cover the following topics included in FNCE 611, the full semester Corporate Finance course: market efficiency, corporate financial policy (including capital structure, cost of capital, dividend policy, and related issues), and options. Please Note: This course will not count towards the Finance Major.
Activity: Lecture. Grading based on problem sets, one or two cases, and a final exam.
Prerequisites: ACCT 611, 612, 613; MGEC 612, 611; STAT 613, 621; prerequisite or concurrent.
Activity: Lecture
0.5 Course Units

FNCE 615 Macroeconomics and The Global Economic Environment (Half CU)
FNCE 615 Introduction To Macroeconomics and The Global Economic Environment (Half Cu) is intended for non-finance majors. It is a half-semester course in macroeconomics, with an emphasis on current events and policy applications. The goal of this course is to provide the foundation needed to recognize and understand broad economic and financial movements in the global economy. Key topics include national income accounting, production and economic growth, employment, business cycles, monetary and fiscal policy, and international finance. By the end of this course, students will be able to evaluate and discuss the global economic environment in which business and financial decisions are made. PLEASE NOTE: This course will not count towards a Finance Major.
Prerequisite: FNCE 611 or FNCE 612
Activity: Lecture
0.5 Course Units
FNCE 717 Financial Derivatives
This course covers one of the most exciting yet fundamental areas in finance: derivative securities. In the modern financial architecture, financial derivatives can be the most challenging and exotic securities traded by institutional specialists, while at the same time, they can also be the basic securities commonly traded by retail investors such as S&P Index Options. Beyond trading, the basic ideas of financial derivatives serve as building blocks to understand a much broader class of financial problems, such as complex asset portfolios, strategic corporate decisions, and stages in venture capital investing. The global derivatives market is one of the most fast-growing markets, with over $600 trillion notional value in total. It is important as ever to understand both the strategic opportunities offered by these derivative instruments and risks they imply. The main objective of this course is to help students gain the intuition and skills on (1) pricing and hedging of derivative securities, and (2) using them for investment and risk management. In terms of methodologies, we apply the non-arbitrage principle and the law of one price to dynamic models through three different approaches: the binomial tree model, the Black-Scholes-Merton option pricing model, and the simulation-based risk neutral pricing approach. We discuss a wide range of applications, including the use of derivatives in asset management, the valuation of corporate securities such as stocks and corporate bonds with embedded options, interest rate derivatives, credit derivatives, as well as crude oil derivatives. In addition to theoretical discussions, we also emphasize practical considerations of implementing strategies using derivatives as tools, especially when no-arbitrage conditions do not hold.
One-term course offered either term
Prerequisites: The following introductory Finance and Statistics courses are recommended but not required. FNCE 611 or FNCE 612; STAT 613, FNCE 613 may be taken concurrently.
Activity: Lecture
1 Course Unit

FNCE 719 International Financial Markets
FNCE 719 is a course on international financial markets. Major topics include foreign exchange rates, international money markets, currency and interest rate derivatives (forwards, options, and swaps), international stock and bond portfolios, and cryptocurrencies. Students learn about the features of financial instruments and the motivations of market participants. The class focuses on risk management, investing, and arbitrage relations in these markets.
One-term course offered either term
Prerequisites: The following introductory courses are recommended but not required. FNCE 611 (or FNCE 612), FNCE 613.
Activity: Lecture
1 Course Unit

FNCE 720 Investment Management
This course studies the concepts and evidence relevant to the management of investment portfolios. Topics include diversification, asset allocation, portfolio optimization, factor models, the relation between risk and return, trading, passive (e.g., index-fund) and active (e.g., hedge-fund, long-short) strategies, mutual funds, performance evaluation, long-horizon investing and simulation. The course deals very little with individual security valuation and discretionary investing (i.e., "equity research" or "stock picking").
One-term course offered either term
Prerequisites: The prerequisites for MBA students are FNCE 611 or FNCE 612; and STAT 613 or STAT 621 Given that investment management requires one to analyze and deal effectively with uncertainty, a good grounding in statistics is essential, and familiarity with statistics should extend through multiple regression, covariance, and correlation.
Activity: Lecture
1 Course Unit

FNCE 721 Real Estate Investment: Analysis and Financing
This course provides an introduction to real estate with a focus on investment and financing issues. Project evaluation, financing strategies, investment decision making and real estate capital markets are covered. No prior knowledge of the industry is required, but students are expected to rapidly acquire a working knowledge of real estate markets. Classes are conducted in a standard lecture format with discussion required. The course contains cases that help students evaluate the impact of more complex financing and capital markets tools used in real estate. There are case studies and two mid-terms, (depending on instructor). Cross-listed with REAL 721.
Taught by: Ferreira, Handbury, Harari, Keys, Sinai, Wong
One-term course offered either term
Prerequisites: FNCE 611 or FNCE 612.
Activity: Lecture
1 Course Unit
Notes: Lecture with discussion required

FNCE 725 Fixed Income Securities
This course covers fixed income securities (including fixed income derivatives) and provides an introduction to the markets in which they are traded, as well as to the tools that are used to value these securities and to assess and manage their risk. Quantitative models play a key role in the valuation and risk management of these securities. As a result, although every effort will be made to introduce the various pricing models and techniques as intuitively as possible and the technical requirements are limited to basic calculus and statistics, the class is by its nature quantitative and will require a steady amount of work. In addition, some computer proficiency will be required for the assignments, although familiarity with a spreadsheet program (such as Microsoft Excel) will suffice.
Course usually offered in fall term
Prerequisites: FNCE 611 or FNCE 612 and STAT 613 or STAT 621
Activity: Lecture
1 Course Unit
FNCE 726 Advanced Corporate Finance

The objective of this course is to study the major decision-making areas of managerial finance and some selected topics in financial theory. The course reviews the theory and empirical evidence related to the investment and financing policies of the firm and attempts to develop decision-making ability in these areas. This course serves as an extension of FNCE 611. Some areas of financial management not covered in FNCE 611 are covered in FNCE 726. These may include leasing, mergers and acquisitions, corporate reorganizations, financial planning, and working capital management, and some other selected topics. Other areas that are covered in FNCE 611 are covered more in depth and more rigorously in FNCE 726. These include investment decision making under uncertainty, cost of capital, capital structure, pricing of selected financial instruments and corporate liabilities, and dividend policy.

One-term course offered either term
Prerequisites: FNCE 611 or FNCE 612; and FNCE 613.
Activity: Lecture
1 Course Unit
Notes: Professor Opp's sections cannot be taken Pass/Fail

FNCE 728 Corporate Valuation

The focus of this course is on the valuation of companies. The course covers current conceptual and theoretical valuation frameworks and translates those frameworks into practical approaches for valuing companies. The relevant accounting topics and the appropriate finance theory are integrated to show how to implement the valuation frameworks discussed on a step-by-step basis. The course teaches how to develop the required information for valuing companies from financial statements and other information sources in a real-world setting. Topics covered in depth include discounted cash flow techniques and price multiples. In addition, the course covers other valuation techniques such as leveraged buyout analysis.

Taught by: Professor Glode in the spring semester
One-term course offered either term
Prerequisites: Minimum of normal first-year courses in accounting, economics, statistics, and FNCE 611 or 612; FNCE 613 (further coursework in financial accounting such as ACCT 742 is very useful).
Activity: Lecture
1 Course Unit
Notes: Professor Glode’s sections may not be taken Pass/Fail

FNCE 730 Urban Fiscal Policy

The purpose of this course is to examine the financing of governments in the urban economy. Topics to be covered include the causes and consequences of the urban fiscal crisis, the design of optimal tax and spending policies for local governments, funding of public infrastructures and the workings of the municipal bond market, privatization of government services, and public financial systems for emerging economies. Applications include analyses of recent fiscal crises, local services and taxes as important determinants of real estate prices, the infrastructure crisis, financing and the provision of public education, and fiscal constitutions for new democracies using South Africa as an example.

Taught by: Dr. Robert Inman
Course usually offered in fall term
Prerequisites: MGEC 621, FNCE 611
Activity: Lecture
1 Course Unit
Notes: Lectures. There is a mid-term and final exam.

FNCE 731 International Corporate Finance

This course analyzes financial problems corporations face that result from operating in an international environment. Major topics covered are corporate strategy and the decision to invest abroad, international portfolio diversification, managing exchange risk, taxation issues, cost of capital and financial structure in the multinational firm, and sources of financing.

Registration: Registration for MBA electives is handled through the MBA Course Auction. For questions about core courses or MBA electives that don't appear in the course auction please contact the MBA Program Office. Non-MBAs interested in graduate classes must work through the academic department and the MBA Program Office.

Prerequisite: FNCE 611 or 612 - A thorough knowledge of Corporate Finance is assumed
Activity: Lecture
1 Course Unit

FNCE 732 International Banking

This course focuses on international financial institutions, especially the activities of global, systemically important banks. We will examine how current and historical events are reshaping the industry and highlight the basic analytics of managing a bank's exposure to liquidity, credit, market and reputational risk. Most classes will begin with discussion of a current event related to course topics. Three team projects will be assigned that will give you deeper exposure to analytic techniques related to the course. Throughout the semester, we will discuss public policy issues facing the international financial system.

Taught by: Professor Richard Herring
Course usually offered in spring term
Prerequisites: FNCE 611 or 612; FNCE 613. One, but not both, can be taken concurrently.
Activity: Lecture
1 Course Unit

FNCE 738 Capital Markets

The objective of this course is to give you a broad understanding of the instruments traded in modern financial markets, the mechanisms that facilitate their trading and issuance, as well as, the motivations of issuers and investors across different asset classes. The course will balance functional and institutional perspectives by highlighting the problems capital markets participants are seeking to solve, as well as, the existing assets and markets which have arisen to accomplish these goals. We will consider design, issuance, and pricing of financial instruments, the arbitrage strategies which keep their prices in-line with one another, and the associated economic and financial stability issues. The course is taught in lecture format, and illustrates key concepts by drawing on a collection of case studies and visits from industry experts.

One-term course offered either term
Prerequisites: FNCE 611 or 612
Activity: Lecture
1 Course Unit
**FNCE 739 Behavioral Finance**

There is an abundance of evidence suggesting that the standard economic paradigm - rational agents in an efficient market - does not adequately describe behavior in financial markets. In this course, we will survey the evidence and use psychology to guide alternative theories of financial markets. Along the way, we will address the standard argument that smart, profit-seeking agents can correct any distortions caused by irrational investors. Further, we will examine more closely the preferences and trading decisions of individual investors. We will argue that their systematic biases can aggregate into observed market inefficiencies. The second half of the course extends the analysis to corporate decision making. We then explore the evidence for both views in the context of capital structure, investment, dividend, and merger decisions.

Course usually offered in spring term
Prerequisites: FNCE 611 or 612; and FNCE 613. Recommended: FNCE 720 and FNCE 726.
Activity: Lecture
1 Course Unit

**FNCE 750 Venture Capital and the Finance of Innovation**

This course covers the finance of technological innovation, with a focus on the valuation tools useful in the venture capital industry. These tools include the "venture capital method," comparables analysis, discounted cash flow analysis, contingent-claims analysis. The primary audience for this course is finance majors interested in careers in venture capital or in R&D-intensive companies in health care or information technology. Course usually offered in spring term
Prerequisites: FNCE 611 and FNCE 613 - FNCE 613 may be taken concurrently
Activity: Lecture
1 Course Unit

**FNCE 751 The Finance of Buyouts and Acquisitions**

The focus of this course is on buying (or acquiring controlling stakes in) firms. The main topics to be covered are mergers and friendly acquisitions, hostile takeovers and buyouts. Using case studies, the course surveys the drivers of success in the transactions. While issues regarding motive and strategy will be discussed, financial theory would be the main lens used to view these control acquiring transactions. This will allow students to (1) evaluate transactions through valuation approaches and (2) structure deals employing financial innovation as a response to legal framework and economic frictions. This course should be of interest to students interested in pursuing careers as private equity investors, advisors in investment banking and corporate managers that deal with these issues. This course assumes familiarity with valuation analysis. During the spring semester students are not permitted to take this course pass fail.
Prerequisites: Pre-Requisites FNCE 611 and FNCE 613 (Or 612) - CO-Requisites FNCE 726 or FNCE 728 may be taken concurrently.
Activity: Lecture
1 Course Unit

**FNCE 754 Impact Investing**

This course explores Impact Investing, a discipline that seeks to generate social benefits as well as financial returns. From tiny beginnings, the Impact Investment space has expanded and now commands significant attention from policymakers, wealthy and public-spirited individuals, academia and, not least, the world’s largest asset managers and philanthropic foundations. Evangelists believe it may be the key to freeing the world from poverty. Skeptics think it will remain confined to the boutique. Regardless, Impact Investing is becoming a distinct career specialization for finance professionals despite the diverse skillset each must have and the uncertainty of the new field’s growth.

Taught by: Christopher Geczy, Ph.D.
Prerequisites: Prerequisites This course has no specific prerequisites, but given its wide-ranging subject matter, students will benefit from completion of any of the following Wharton courses:
FNCE 613 Macroeconomics and the Global Economic Environment;
FNCE 720 Investment Management; FNCE 738 Capital Markets; and FNCE 895 Private Equity. Coursework or practical experience in microeconomics, development economics, international philanthropy, Non-Governmental Organizations, financial risk management and political risk analysis will also be useful.
Activity: Lecture
1 Course Unit

**FNCE 756 Finance Energy**

The objective of this course is to provide students with detailed knowledge of corporate structures, valuation methods, project finance, risk management practices, corporate governance issues, and geopolitical risks in the energy industry. In general, this course seeks to provide students with an overall context for understanding energy issues and risks, and how these might affect financing and investment decisions for both providers of energy and end-users of energy.

Taught by: Professor Erik Giljie
One-term course offered either term
Prerequisites: The prerequisites for the course are FNCE 726 Advanced Corporate Finance or FNCE 728 Corporate Valuation. Students who receive permission to enroll without the prerequisites are expected to review the relevant topics as necessary to meet the requirements of the class.
Activity: Lecture
1 Course Unit

**FNCE 785 Business Strategy, Private Equity and Corporate Law**

This course explores strategic, business and legal decision making in a fluid real world corporate context. Classes will cover a series of timely financial and legal subjects as well as case studies that deal with topical problems in corporate governance, investment strategy, executive compensation and potential corporate and criminal behavior. Press, public market reaction and governmental/political considerations will be integrated into the discussion. All students will be required to participate in one major team project. An equal number of graduate law and business students will participate. The instructor, a 26 year veteran and retired partner of the private equity firm KKR, is also an attorney and CPA.

Taught by: Perry Golkin
Prerequisite: No Pre-Requisites
Activity: Lecture
1 Course Unit
FNCE 810 Structural Estimation in Corporate Finance

The main goal of the course is to teach students the tools needed to write a structural estimation research paper. Additional goals include the following: 1. Strengthen students’ ability to dissect, digest, and critique academic research. 2. Expose students to both classic and cutting-edge papers in the structural corporate finance literature. 3. Help students develop new research ideas in this area. We will take a practical, hands-on approach that focuses on tools. Topics will include simulation estimators, identification challenges, and a review of the literature. The class format will include lectures and discussions of recent papers. Assignments may include (but limited to) estimating a dynamic investment model, presenting and discussing papers, and writing a research proposal.

Taught by: Professor Luke Taylor
Prerequisites: I will assume that students know how to solve dynamic optimization problems, for example, by value function iteration. We will not review this topic in class, yet I will expect you to understand it. You probably learned this topic in an introductory macro PhD class, in John Zhu’s finance PhD class, or in Joao Gomes’s finance PhD class.

Activity: Lecture
0.5 Course Units

FNCE 811 INFRASTRUCTURE INVESTING

The world economy runs on the infrastructure which has been built over the past 10,000 years. Each year, this infrastructure requires updating and new additions, from roads and bridges (the original infrastructure), to railroads, airports (the more recent infrastructure), to telecommunications and solar and wind power installations (modern infrastructure). There is a vast amount of public (i.e., taxpayer money directed by government officials) and private (i.e., individuals’ money typically managed on their behalf and directed by private equity or banks into infrastructure investments). In this course, we will cover Infrastructure Financing and investing from various angles. We will provide descriptions of types of infrastructure, examine the financing needs of infrastructure projects, consider the historic role of government and non-government funding, and assess the changing needs of consumers and role of technology and the increasing demands posed by a globalizing economy. As private equity firms continue to build infrastructure funds, the need for, and role for, private money continues to evolve, so we will also examine infrastructure investing as an alternative asset class from the investors’ perspective.

Taught by: Professor Kevin Kaiser
Prerequisites: FNCE 611 Corporate Finance; FNCE 728 is recommended but not required.
Activity: Lecture
0.5 Course Units

FNCE 883 Strategic Equity Finance

This course combines lectures and cases, and will go through actual situations where companies need to make strategic decisions on raising equity capital. We will address different phases of a company’s life cycle. Through these cases, from the decision-makers perspective, we will explore the different paths that can be taken and consider issues such as investor activism, governance and regulatory and valuation impact.

FNCE 883 is a half semester course offered in Q3 of the spring semester.

Taught by: Professor David Musto and Professor David Erickson

Course usually offered in spring term
Prerequisite: FNCE 611 Corporate Finance
Activity: Lecture
0.5 Course Units

FNCE 884 ASP - Advanced Topics in Private Equity

This course will address a variety of applied topics in private equity (PE), with a focus on growth and later-stage buyout transactions (venture capital is not explicitly addressed in this course), and a primarily U.S.-centric view that should be largely applicable in other markets. In addition, the course will focus on the transaction stage of PE investing i.e., the art of the deal and mostly leave aside deal sourcing, portfolio management and investor relations. The goal of this course is to educate students about the substance, process and mechanics of PE investing, through the lens of the investment professionals, counterparties and advisors that drive transactions to completion. Course topics will address the entire deal process, and will include the following: Commercial Diligence (incl. financial modeling); Debt Financing; Accounting Diligence; Sales & Purchase Agreements; Comps Analysis; and Other Advisory Work. Throughout the course, students will learn about each element of the deal process through in-class lectures, while concurrently apply those learnings to a real-time mock deal, and preparing dealmaterials that mirror a real private equity transaction. The in-class lectures will cover both conceptual frameworks and real-world examples. FNCE 884-001 will be taught by Professor Bilge Yilmaz. Section 001 will contain six hours of material on how to execute the value creation plan post acquisition through an operational partner’s perspective. In balance, section 002 will be taught by Professor Bilge Yilmaz and David Bard, Senior Fellow and Lecture will spend more time on all other topics.

Taught by: Professor Bilge Yilmaz (yilmaz@wharton.upenn.edu) and Fellow David Bard
Prerequisites: Successful completion of core finance requirements, FNCE 611 and FNCE 613, as well as FNCE 726 or FNCE 751; special permission can also be requested based on relevant professional experience.

Activity: Lecture
1 Course Unit

FNCE 885 Fin-Tech

The course exposes students to this fast-growing and exciting intersection between finance (Fin) and technology (Tech) while emphasizing the role data and analytics play. The course is structured around three main FinTech areas: (i) Lending/Banking services, (ii) Clearing (iii) Trading. It provides specific coverage and examples of developments from(1) peer-to-peer lending, (2) blockchain and distributed ledgers, (3) networks and their use in trading, and (4) algo trading and its use of non-standard inputs. In each of these areas, we start by analyzing the marketplace, and the incumbents, and the business case and strategies of the incoming technology-based players, while understanding the role data and analytics play in driving the technology-based services. The course is built around a large number of examples and cases, guest lectures, student presentations, and group projects.

Student are thus expected to work in teams and demonstrate a high level of independent learning and initiative.

Prerequisite: A thorough knowledge of FNCE 611 is assumed

Activity: Lecture
0.5 Course Units
FNCE 886 ASP - Hedge Funds
This course will cover critical aspects and characteristics of hedge funds and the hedge fund industry. It will look at the legal foundations and structures of hedge funds including the primary regulations in the U.S. and abroad that are most relevant for hedge funds. It will also present the major hedge fund strategies, describe operation, control, administration, due diligence and valuation issues. Performance evaluation and investing in hedge funds from the investor’s perspective will be discussed as will be issues of potential changes in regulation, risk management, and the use of leverage. The format of the course will mix lectures with presentations from industry participants, hedge fund managers, those who invest in hedge funds, those who advise them and provide services to them, and those who regulate them. Those who want to launch a hedge fund, join an existing one, invest in one, or provide services to one will want to register for this course.
Taught by: Professor Scott Richard
Prerequisite: FNCE 611 or FNCE 612
Activity: Lecture
0.5 Course Units

FNCE 887 ASP - Shareholder Activism
The aim of the course is to provide an introduction to shareholder activism. The course makes use of lectures and case studies. The lectures expose the students to the institutional and empirical facts as well as approaches followed by leading shareholder activists. The case studies are designed to provide students an experience on identifying potential opportunity for value creation through active engagement.
Assignments require students to develop/practice skills on fundamental analysis.
Taught by: Professor Bilge Yilmaz and Kevin Kaiser
Activity: Lecture
1 Course Unit

FNCE 891 ASP - Corporate Restructuring
This course familiarizes students with financial, strategic and legal issues associated with the restructuring of financially distressed firms. The objective is to give students tools necessary to deal with the often-complex situation facing a failing firm. The participants will gain a basic understanding of the various options available for distressed firms, such as out-of-court workouts, exchange offers, prepackaged and pre-negotiated bankruptcies, distressed asset sales, 363 auctions, and Chapter 11 reorganization. We will explore the difference between economic and financial distress, and the implications for the restructuring process. Since bankruptcy provides a threat point for any distressed restructuring, the course reviews key issues of the legal framework governing bankruptcy and reorganization in the U.S. and internationally. Finally, we will consider distressed debt as an asset class and develop techniques for investing in distressed securities.
The course is case based, providing ample opportunity to practice valuation of distressed companies, and hosts several guest speakers from the restructuring industry. It should be of interest for a range of careers, including private equity, investment banking, and turnaround management.
Prerequisites: FNCE 611 or 612; FNCE 613; FNCE 726 and FNCE 728 or permission of the professor.
Activity: Lecture
0.5 Course Units
Notes: The course's content will be presented using a mixture of lectures, case studies, and guest speakers. The speakers will be Wharton alumni with leadership roles in the restructuring industry as managers, advisors, and investors.

FNCE 893 Policy Decisions by Central Banks: The Fed, the ECB and the BOI
This course aims to provide the future global manager and financial analyst with the knowledge on policies set by central banks, regulators and governments to reach the goals of price and financial stability as well as support of growth and employment. The core of the course connects between the formal and actual goals that central banks follow and the related economic analysis on which the goals and the policies are set. We will explain the economic rationale for the policy prescriptions to reach the goals and how these are implemented using institutional framework in the US, the European Central Bank (ECB), Israel and remarks on other countries. We use data, current events and events of the 2007-2013 financial crisis as a basis for discussion and assignments. All these are aimed at understanding how and why the Federal Reserve of the US (the Fed), The bank of Israel (BOI) and the European Central Bank (ECB) set their policies and how that is related to academic research on these issues.
Taught by: Professor Zvi Eckstein; Dean and Professor, Th Arison School of Business And the Tiomkin School of Economics. Herzliya, Israel
Prerequisites: FNCE 611 or 612; FNCE 613; STAT 613.
Activity: Lecture
0.5 Course Units
Notes: Requirements; Final examinations (55%-passing grade is required); two out of three assignments (cases) done by teams of 3-4 students (20%); one group participation (10%); active participation in class discussion (15%)

FNCE 895 Advanced Seminar in Private Equity
This course will be a survey of the private equity asset class. Its objective is to provide an understanding of the concepts, agents, and institutions involved in the late stage corporate private equity market in the U.S. and around the globe. It will examine the buyout market and the activities of buyout funds from the differing perspectives of private equity investors, private equity fund sponsors, and managers of the portfolio companies. The course will be taught almost entirely with cases. Distinguished Wharton alumni in the private equity industry will be our guest speakers for many of the cases based on transactions they concluded. While this course is primarily intended for graduate students, admission may be granted to a limited number of interested undergraduate students. PLEASE NOTE: this course may be recorded for live or subsequent distribution, display, broadcast, or commercialization in any media, including video, audio, or electronic media. For additional information, see the course syllabus or contact the department. This is a Pass/Fail course and will not count towards your concentration.
Prerequisites: FNCE 726 and FNCE 751 or permission from the instructor.
Activity: Lecture
0.5 Course Units

FNCE 896 Finance in Europe
Activity: Lecture
0.5 Course Units
FNCE 897 Finance In The Middle East & North Africa
This is a Wharton Global Modular Course on finance in the Middle East and North Africa. Its objective is to bring students, academics and industry experts together to study financial markets, practice, and institutions in this region.
Taught by: Professor Bulent Gultekin, Finance Department and Professor Michael J.T. McMillen, Penn Law School
Activity: Lecture
0.5 Course Units
Notes: Course Format - This course will be taught through cases and lectures. Guest Lecturers - Distinguished practitioners will lecture and conduct case discussions. Our guest lecturers will bring their experience and insights to the classroom.

FNCE 899 Independent Study Project in Finance
Independent Study Projects require extensive independent work and a considerable amount of writing. ISP in Finance are intended to give students the opportunity to study a particular topic in Finance in greater depth than is covered in the curriculum. The application for ISP's should outline a plan of study that requires at least as much work as a typical course in the Finance Department that meets twice a week. At a minimum, we need a description of the methodology you intend to employ, a bibliography and description of the data that you will use as well as a list of interim deliverables and dates to ensure that you complete the project within the semester. Applications for FNCE 899 ISP's will not be accepted after the THIRD WEEK OF THE SEMESTER. You must submit your Finance ISP request using the Finance Department's ISP form located at https://fnce.wharton.upenn.edu under the Course ISP section
Prerequisites: FNCE 899, ISP's must be supervised by a Standing Faculty member of the Finance Department.
Activity: Independent Study
1 Course Unit

FNCE 911 Financial Economics
The objective of this course is to undertake a rigorous study of the theoretical foundations of modern financial economics. The course will cover the central themes of modern finance including individual investment decisions under uncertainty, stochastic dominance, mean variance theory, capital market equilibrium and asset valuation, arbitrage pricing theory, option pricing, and incomplete markets, and the potential application of these themes. Upon completion of this course, students should acquire a clear understanding of the major theoretical results concerning individuals' consumption and portfolio decisions under uncertainty and their implications for the valuation of securities. Course usually offered in fall term
Prerequisites: ECON 681 or ECON 701, Matrix Algebra, and Calculus
Activity: Lecture
1 Course Unit

FNCE 912 Corporate Finance and Financial Institutions
This course provides students with an overview of the basic contributions in the modern theory of corporate finance and financial institutions. The course is methodology oriented in that students are required to master necessary technical tools for each topic. The topics covered may include capital structure, distribution policy, financial intermediation, incomplete financial contracting, initial and seasoned public offerings, market for corporate control, product market corporate finance interactions, corporate reorganization and bankruptcy, financing in imperfect markets, security design under adverse selection and moral hazard, and some selected topics.
Course usually offered in spring term
Prerequisite: ECON 681 or ECON 701
Activity: Lecture
1 Course Unit

FNCE 921 Introduction to Empirical Methods in Finance
This course is an introduction to empirical methods commonly employed in finance. It provides the background for FNCE 934, Empirical Research in Finance. The course is organized around empirical papers with an emphasis on econometric methods. A heavy reliance will be placed on analysis of financial data.
Course usually offered in spring term
Prerequisites: FNCE 911 (can be taken concurrently), STAT 510 and 511 or equivalent.
Activity: Lecture
1 Course Unit

FNCE 922 Continuous-Time Financial Economics
This course covers some advanced material on the theory of financial markets developed over the last two decades. The emphasis is on dynamic asset pricing and consumption choices in a continuous time setting. The articles discussed include many classical papers in the field as well as some of the most recent developments. The lectures will emphasize the concepts and technical tools needed to understand the articles.
Course usually offered in fall term
Prerequisites: FNCE 911, ECON 701, ECON 703. (Graduate level knowledge of analysis and statistics is highly recommended but not required)
Activity: Lecture
1 Course Unit

FNCE 923 Financial Economics Under Imperfect Information
This course covers General equilibrium and rational expectations, foundations of the theory of information; learning from prices in rational expectations equilibrium models, moral hazard, adverse selection, and signalling Bidding theories.
Course not offered every year
Prerequisite: FNCE 922
Activity: Lecture
1 Course Unit
FNCE 924 Intertemporal Macroeconomics and Finance
This is a doctoral level course on macroeconomics, with special emphasis on intertemporal choice under uncertainty and topics related to finance. Topics include: optimal consumption and saving, the stochastic growth model, q-theory of investment, (incomplete) risk sharing and asset pricing. The course will cover and apply techniques, including dynamic programming, to solve dynamic optimization problems under uncertainty. Numerical solution methods are also discussed.
Course usually offered in spring term
Prerequisite: FNCE 911
Activity: Lecture
1 Course Unit

FNCE 925 Topics In Asset Pricing
This course will analyze several aspects of liquidity. Mostly, it will concentrate on liquidity as an asset's property of being traded quickly and at low cost, but the notion of availability of cash will also be studied. Particular attention will be devoted to exogenous transaction costs, asymmetric information and search frictions as determinants of asset liquidity and, consequently, price. We will also look at liquidity risk, institutional features arising as response to liquidity problems, and financing constraints. The course will concentrate on theoretical models, but the empirical literature will be referred to throughout.
Course not offered every year
Activity: Lecture
1 Course Unit

FNCE 926 Empirical Methods in Corporate Finance
The course will cover a variety of microeconometric models and methods including panel data models, program evaluation methods e.g. difference in differences, matching techniques, regression discontinuity design? instrumental variables, duration models, structural estimation? e.g. simulated methods of moments?. The structure of the course consists of lectures, student presentations, and empirical exercises. I will utilize published studies in a variety of fields such as corporate finance, labor economics, and industrial organization to illustrate the various techniques. The goal of the course is to provide students with a working knowledge of various econometric techniques that they can apply in their own research. As such, the emphasis of the course is on applications, not theory.
Course usually offered in fall term
Prerequisites: STAT 521 - Students are required to have taken a graduate sequence in Econometrics, you should be comfortable with econometrics at the level of William Greene's "Econometric Analysis of Cross-Section and Panel Data".
Activity: Lecture
1 Course Unit

FNCE 928 Methods In Finance Theory
This doctoral level course introduces students to game theory and continuous-time methods. Both techniques represent fundamental approaches to organizing, modeling and understanding complex financial phenomena. The game theory half will cover equilibrium concepts, moral hazard, signaling and screening. Highlights include rigorous formulations and analyses of the perfect Bayesian equilibrium concept and the principal-agent relationship. Both ideas are central to theories of corporate finance and financial markets - subjects that the students will be exposed to in the spring. The continuous-time methods half will cover basic stochastic calculus and applications to capital structure, Merton's consumption-portfolio, and problem and optimal contracts.
Taught by: PROFESSOR YIRAN JOHN ZHU
Course usually offered in spring term
Prerequisites: Some mathematical sophistication. A familiarity with the basic principles of microeconomics is useful but not required.
Activity: Lecture
1 Course Unit

FNCE 932 Topics In Corporate Finance
This course covers Advanced theory and empirical investigations; financial decisions of the firm, dividends, capital structure, mergers, and takeovers.
Course not offered every year
Prerequisites: FNCE 911, FNCE 921, or permission of instructor.
Activity: Lecture
1 Course Unit

FNCE 934 Empirical Methods In Asset Pricing
This course has three main objectives: The first object is to introduce students to the fundamental works and the frontier of research in dynamic asset pricing. We will cover recent models that have been proposed to shed light on intriguing and important empirical patterns in the cross section and in the time series. Topics include non-separable utilities, market incompleteness, learning, uncertainty, differences of opinions, ex-ante and ex-post asymmetric information, ambiguity and Knightian uncertainty. The second objective is to teach students how to think of asset pricing research under a bigger or richer framework. We shall focus on the interactions between asset pricing and other fields such as macroeconomics, corporate finance, financial institutions, and international finance. The goal of investigating the joint dynamics is not only to better understand how asset prices are determined, but also (maybe more importantly) how would asset pricing dynamics affect other important economic variables such as investment, corporate payout and financing, unemployment, risk sharing, and international capital flows. Students will learn production-based asset pricing models, particularly the asset pricing models with investment-specific technology shocks, risk shocks, financial friction, searching frictions and information frictions. Of course, the advanced solution methods will focus too. The third objective is to introduce advanced empirical methods to analyze the data and the quantitative dynamic models. It includes how to estimate structural dynamic models, how evaluate structural models beyond goodness-of-fit tests, how confront the models predictions with empirical data by simulation and re-sampling techniques, and how to efficiently test models and explore new patterns using asset pricing and macro data.
Course usually offered in fall term
Prerequisites: FNCE 911 and FNCE 921
Activity: Lecture
1 Course Unit
FNCE 937 Applied Quantitative Methods in Finance
This is an advanced course in quantitative theory applied to macro and finance models. It is intended for doctoral students in finance, economics and related fields. The course focuses on four broad theoretical literatures: (i) firm investment and growth; (ii) corporate, household and sovereign debt; (iii) asset pricing in general equilibrium; and (iv) equilibrium macro models with a financial sector. My approach is to develop and discuss in detail a unified framework that is suited to address most topics, usually covering a few central topics and the core papers. We then discuss the more recent literature, highlighting how authors combine and expand upon the core ideas. This part of the course usually relies on regular student presentations.
Course usually offered in fall term
Prerequisite: FNCE 911
Activity: Lecture
1 Course Unit