MASTER OF FINANCE - FINANCE, STEM-CERTIFIED

FIN 613	Econometrics	3
FIN 623	Financial Statement Analysis	3
FIN 624	Financial Modeling	3
FIN 625	Investments	3
FIN 630	Portfolio Management	3
FIN 632	Advanced Corporate Finance	3
FIN 670	CFA Preparatory	3

Select 4 Courses From:

FIN 621	Mergers and Acquisitions	3
FIN 626	Interntl Finance Mgt	3
FIN 627	Financial Derivatives & Risk Management	3
FIN 628	Fixed Income Analysis	3
FIN 631	Securities Analysis	3
FIN 640	Fixed Income Trading	3
FIN 641	Equity Trading	3
FIN 642	Energy Trading and Risk Management	3

Courses

FIN 603. Advanced Financial Accounting. 3 Hours
Satisfies the accounting capstone requirement for accounting majors and serves as evidence of the culmination of the Common Academic Program. Study of advanced financial accounting topics including consolidated financial statements and accounting for business combinations, multinational subsidiaries, and foreign currency transactions. A case based practical role play experience as an accountant and a case based analysis addressing fraud and the consequences of unethical behavior and the important role accountants play in protecting the public interest and serving society in general are integrated into the course. Prerequisite(s): ACC 306 with a minimum grade of C or permission of Department Chairperson; Senior standing.

FIN 613. Econometrics. 3 Hours
Training in the art of making economic measurements from financial database using regression analysis as the principle tool; use of advanced statistical software (e.g. SAS, Stata, etc.) to estimate and test regression equations; interpretation of results using statistical inference. Prerequisites: FIN 301 or MBA 520 or MBA 620 and DSC 211.

FIN 621. Mergers and Acquisitions. 3 Hours
In depth study of company valuation techniques and the influence of the governance structure - the CEO, President, and the Board of Directors - on company value. Prerequisite(s): FIN 623 or MBA 623.

FIN 623. Financial Statement Analysis. 3 Hours
Focuses on the analysis of financial statements by integrating accounting concepts and principles to assess a company's performance, quality of earnings, valuation, and other issues. Specific topics may include analysis of balance sheet, income statement, cash flow, off-balance sheet assets/liabilities, inter-corporate investments, and business combination. Prerequisites: FIN 301 or MBA 520 or MBA 620 or equivalent.

FIN 624. Financial Modeling. 3 Hours
Lab course focuses on building financial models in R and Excel. Students will learn to construct models for practical, real-world applications that cover simple examples such as cash flow and ratio analysis to more complicated models of bond pricing, stock valuation, and option pricing. In the process, students will master basic R programming language, Excel skills, and more advanced modeling techniques. Prerequisites: FIN 301 or MBA 520 or MBA 620 or equivalent.

FIN 625. Investments. 3 Hours
Study of investment principles and techniques used by both individual and institutional investors. Topics include bond and stock markets, security valuation methods, portfolio theory and management, and investment institutions. Prerequisites: FIN 301 or MBA 520 or MBA 620 or equivalent.

FIN 626. Interntl Finance Mgt. 3 Hours
Integrates the international monetary environment with the multinational business firm and its operations. Analyzes the balance of international payments and exchange rate determination. Specific international financial management topics include export-import financing, foreign direct investment, foreign exchange risk management, financial controls, and international capital budgeting. Prerequisites: FIN 301 or MBA 520 or MBA 620 or equivalent.

FIN 627. Financial Derivatives & Risk Management. 3 Hours
Provides a theoretical foundation for the pricing of contingent claims and for designing risk-management strategies. It covers option pricing models, hedging techniques, and trading strategies. It also includes portfolio insurance, value-at-risk measure, multi-step binomial trees to value American options, interest rate options, and other exotic options. Prerequisites: FIN 360 or FIN 625 or MBA 625 or MTH 558.

FIN 628. Fixed Income Analysis. 3 Hours
Exposes students to a variety of fixed income instruments that are traded in the financial markets, their investment characteristics, the state-of-art technology for valuing them, technique for quantifying their interest rate risk, and portfolio strategies for using them. Prerequisites: FIN 360 or FIN 625 or MBA 625 or MTH 558.

FIN 630. Portfolio Management. 3 Hours
Advanced topics on portfolio management process for both individual and institutional portfolio management, including specifying and quantifying investor objectives and constraints, formulating portfolio policies and strategies, specifying capital market expectations, constructing portfolios, allocating assets and measuring portfolio performance against objectives. Prerequisite(s): FIN 360 or FIN 625 or MBA 625 or MTH 558.

FIN 631. Securities Analysis. 3 Hours
Stock intrinsic valuation by constructing FCFF Excel model, which includes forecasting firm financial statements, estimating levered beta and WACC, predicting free cash flows from firm and sensitivity analysis. Students will be selected to participate in the CFA Research Challenge. Prerequisite(s): FIN 360 or FIN 625 or MBA 625 or MTH 558.

FIN 632. Advanced Corporate Finance. 3 Hours
This course focuses upon corporate finance issues addressing short term financial management, long term capital budgeting, and long term financing choices. The course requires that the students understand these issues through a series of cases and projects. A significant amount of spreadsheet modeling together with both individual and group work will be required to examine the cases and projects. Prerequisite(s): FIN 623 and FIN 624.

FIN 640. Fixed Income Trading. 3 Hours
Theory and practice in active bond portfolio management. Literature and practical issues related to managing a bond fund. Seminar format; students are divided into teams, each responsible for a specific sector of the fixed income market. Prerequisite(s): FIN 628.

FIN 641. Equity Trading. 3 Hours
The art and science of technical equity trading. Students implement a trading plan in a real stock market environment under a set risk management policy. Students learn to watch the market, analyze profitable situations, and produce winning trades. Prerequisite(s): FIN 360 or FIN 625 or MBA 625 or MTH 558.

FIN 642. Energy Trading and Risk Management. 3 Hours
Energy Trading and Risk Management- Energy market portfolio skills: physicality of natural gas market, natural gas pricing, natural gas portfolio transactions including hedging, basic risk management. VaR simulation produced, power pricing and risk management, weather hedging, credit derivatives and their use in energy. Oil basics and pricing a tolling agreement. Prerequisite(s): FIN 360 or FIN 625 or MBA 625 or MTH 558.

FIN 643. Investment Seminar. 3 Hours
Application of investment theory and techniques in a real-world setting. Students manage a funded portfolio in terms of establishing objectives, selecting securities to buy (sell), and evaluating portfolio performance. Emphasis is placed upon attempting to identify undervalued common stocks. Prerequisite(s): FIN 630.

FIN 658. Financial Mathematics I-Discrete Model. 3 Hours
Discrete methods in financial mathematics. Topics include introduction to financial derivatives, discrete probability theory, discrete stochastic processes (Markov chain, random walk, and Martingale), binomial tree models for derivative pricing and computational methods (European and American options), forward and futures, and interest rate derivatives. Prerequisite(s): MTH 411 or equivalent.

FIN 659. Financial Mathematics II-Continuous Model. 3 Hours
Continuous methods in financial mathematics. Topics include review of continuous probability theory, Ito's Lemma, the Black-Scholes partial differential equation, option pricing via partial differential equations, analysis of exotic options, local and stochastic volatility models, American options, fixed income and stopping time. Computational methods are introduced. Prerequisite(s): FIN 658 or MTH 558.

FIN 660. Finance Empirical Method. 3 Hours
The course includes readings of finance literature in asset pricing, corporate finance and a mini project that requires the students to analyze topics in the financial markets using databases such as CRSP and Compustat. Various econometric methods will be employed; advanced statistical programming (e.g. SAS, Stata, etc.) is essential. Prerequisite(s): FIN 613 and FIN 625.

FIN 663. Computational Finance. 3 Hours
The purpose of this course is to introduce students to numerical methods and various financial problems that include portfolio optimization and derivatives valuation that can be tackled by numerical methods. Students will learn the basics of numerical analysis, optimization methods, monte carlo simulations and finite difference methods for solving PDEs. Prerequisites: FIN 301 or MBA 520 or MBA 620 or equivalent.

FIN 670. CFA Preparatory. 3 Hours
A course designed to prepare students for CFA Levels I and II exam. Some scholarships may be given by the CFA Institute. CFA exam encompasses topic areas including quantitative methods, economics, financial reporting and analysis, corporate finance, equity investments, fixed income, derivatives, portfolio management, and ethics and professional standards. Since these topics constitute major components of the MF curriculum, CFA Preparatory provides the opportunity to integrate the learning experience. Students must complete 18 hrs. in the Master of Finance program before being eligible to take this course. Prerequisite(s): FIN 623, FIN 624, FIN 630.

FIN 680. Independent Study. 3 Hours
Directed readings and research in selected fields of finance. The number of semester hours will depend on the amount of work chosen. The course will involve periodic discussions with other students and faculty in the program. May be taken more than once for additional credit. Students must have a 3.0 GPA in Finance; minimum of nine semester hours in Finance; nomination by faculty; permission of department chairperson. Prerequisites: 3,0 GPA.