Daniels College of Business
MSAQF Program (45-57 Credit-Hours)

Revised: May 17, 2018

**ACTG 4220 - Financial Accounting and Analysis (4 credits)**

Consolidated financial statements, accounting for leases, currency translation, and options and futures impacts, GAAP to restate financial statements for differences between companies. Impact of financial transactions and evaluating a firm’s performance from a user's perspective.

Prerequisite: FIN 4630

Offered: Winter

**ACTG 4610 - Financial Accounting and Reporting (4 credits)**

The purpose of this course is to provide students with an understanding of the financial statements issued by companies to external parties, such as shareholders and creditors. The course covers the fundamentals of accounting, from recording economic events in the accounting records to the preparation of the company’s financial statements. In addition, the course examines major transaction categories, accounting policy choices of business firms and their financial statement implications, as well as the content of publicly-traded companies’ Form 10-K annual reports.

Offered: Fall and Spring

**FIN 4000 - Financial Modeling and Databases Bootcamp (1 credit)**

This bootcamp is designed to equip students with a firm foundation in financial modeling as well as acquire an adequate command of Excel functionality and efficiency. This course also serves as an introduction to financial databases, mainly centered on the Capital IQ platform, which the student will be using throughout his or her academic and professional career. Topics covered include: Excel modeling best practices, keyboard shortcuts and common functions, financial datasets, and practical modeling applications in finance.

Offered: Fall and Spring

**FIN 4110 - Ethics in Finance (4 credits)**

This second course in the Compass is specifically designed for the Master of Science Finance (MSF) curriculum and focuses on the ethical, professional, social, and legal responsibilities of finance professionals, organizations and markets. Financial institutions are facing a crisis of confidence. Trust is an essential ingredient to maintaining efficient and effective financial markets. The finance industry has acquired a reputation for unethical and unsavory activity and has lost the trust of much of society. Many financial professionals believe they are encouraged and rewarded for engaging in unethical activity. We discuss the ethical issues facing financial institutions and professionals and explore solutions for resolving these issues and restoring trust.

Offered: Fall and Spring
FIN 4150 - Advanced Business Valuation (4 credits)

The objective of this course is to present advanced valuation techniques to deepen students' understanding and enhance their knowledge of valuation theory and practical application.
Prerequisite: FIN 4410
Offered: Summer and Fall

FIN 4160 - Treasury Management (4 credits)

The objective of the course is to provide students with a comprehensive understanding of how various treasury functions are managed in a corporation and build students' capabilities to assume the role of a proficient treasury manager.
Offered: Spring

FIN 4170 - Quantitative Methods in Finance (4 credits)

This course introduces students to the mathematical and statistical methods needed in order to succeed in the quantitative discipline of modern finance. Topics include differential calculus, optimization techniques, linear algebra, probability, and statistical methods. Data analysis software is used when appropriate to facilitate the analysis. Emphasis is on applications, analytic reasoning, and proper interpretation of results.
Offered: Fall and Spring

FIN 4180 - Global Finance (2 credits)

This course explores financial management in the international arena. Principal content elements include: The market for foreign exchange, interest rate parity, hedging currency risk, international portfolio management. Upon completion of this course, students should be able to accomplish the following objectives: Explain the determinants of foreign exchange rates; Explain and identify the financial difficulties and opportunities faced by corporations when operating internationally; Apply forwards and options for hedging currency risk; Identify the determinants of the expected returns on international investments; Discuss current issues in international finance.
Prerequisites: FIN 4630
Offered: Winter and Summer

FIN 4200 - Financial Investments and Markets (4 credits)

Introduction to financial markets, securities, instruments, and other factors that determine the financial environment.
Prerequisite: FIN 4170
Co-requisite: FIN 4630
Offered: Fall and Winter
### FIN 4320 - Equity Analysis (4 credits)

Examination of statistical and theoretical foundation for determination of market prices and market returns. Includes theoretical implications for investment management of options, futures, stocks and bonds.

Prerequisite: FIN 4200  
Offered: Summer, Fall and Spring

### FIN 4330 - Portfolio Management and Risk Analytics (4 credits)

Case and project approach to foundation of investment portfolio management.

Prerequisite: FIN 4200.  
Offered: Winter

### FIN 4410 - Financial Planning & Analysis (4 credits)

Advanced course in financial planning and decision-making focusing on capital structure, working capital management, long-range and short-term financial planning, and mergers.

Prerequisite: FIN 4630  
Offered: Fall and Spring

### FIN 4420 - Capital Expenditure Analysis (4 credits)

Advanced course in capital budgeting examining capital allocation processes and procedures and the theory and applied techniques of capital spending and divestment under conditions of certainty and uncertainty. Related issues of cost of capital and leasing also included.

Prerequisite: FIN 4630  
Offered: Winter

### FIN 4500 - Financial Modeling (4 credits)

Use of erect functions and macros to construct financial models from corporate finance, investments and financial markets.

Prerequisites: FIN 4000 & ACTG 4610  
Co-requisite: FIN 4630  
Offered: Fall, Spring and Winter

### FIN 4630 - Managerial Finance (4 credits)

Analytical skills and tools of finances; theoretical concepts and practical applications. Topics include ratio analysis, breakeven analysis and leverage, securities valuation, capital budgeting, financial forecasting, and working capital management.

Prerequisite: ACTG 4610  
Co-requisite: FIN 4200  
Offered: Summer, Fall and Winter
# Master of Science in Applied Quantitative Finance Course Descriptions

## FIN 4710 - Marsico Investment Fund I (4 credits)

A securities analysis and portfolio management practicum in which students manage a University endowment gift donated by Tom and Cydney Marsico. The selection of students for this class is competitive. Students must agree to participate for 2 consecutive quarters, and they must be willing to address portfolio issues during the between-quarter periods if necessary.

Prerequisite: Permission of instructor (First part of two-quarter course.)

Offered: Summer, Fall, Winter and Spring

## FIN 4720 - Marsico Investment Fund II (4 credits)

A securities analysis and portfolio management practicum in which students manage a University endowment gift donated by Tom and Cydney Marsico.

Prerequisite: FIN 4710 (Second part of two-quarter course.)

Offered: Summer, Fall, Winter and Spring

## FIN 4730 - Marsico Investment Fund III (4 credits)

This course is an elective course that is the third in the series of classes involving the Graduate investment fund class: Marsico Investment Fund I & II. This course allows students to apply the investment, security analysis, and portfolio management tools and techniques that they have learned in their Finance classes. The students manage an actual portfolio, a portion of the University's endowment originally gifted by Tom and Cydney Marsico. The selection of students for this class is competitive. Because the course involves the application of tools and concepts learned in other classes, the best time to take the course is in the last year of a student's program.

Prerequisites: FIN 4710 and FIN 4720

Offered: Summer, Fall, Winter and Spring

## FIN 4740 - Managerial Microeconomics (2 credits)

This course combines the standard tools of microeconomic analysis with a well-rounded appreciation of the important perspectives that form the business environment in the contemporary world. The goal is to provide students with the tools from microeconomics, game theory, and industrial organization that they need to make sound managerial decisions. The course uses case studies to develop practical insights into managing the firm's resources to achieve competitive advantage. The course is divided into two principal modules based on market structure: perfect competition and imperfect competition. Both modules cover optimal behavior and strategies.

Offered: Summer, Fall and Winter

## FIN 4750 - Managerial Macroeconomics (2 credits)

This course covers the theory and practice of modern macroeconomics. It teaches students how private market forces and government policy decisions drive fluctuations in the global economy and affect the business environment. It explores issues related to inflation,
interest rates, foreign exchange rate, business cycles, and monetary and fiscal policies. The course uses case studies to analyze real-life macroeconomic issues, and students are encouraged to investigate the potential and limitations of macroeconomic theory with real-world problems. The course is divided into two principle modules: the economy in the long run, and the economy in the short run. Both modules cover impacts of government policies on the business environment in a closed economy and an open economy.
Offered: Summer, Fall and Winter

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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tr>
<td>FIN 4800</td>
<td>Organized Walk Down Wall Street (4 credits)</td>
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<td>After four class sessions in Denver, participants will spend five days in New York visiting exchanges, brokerage firms, investment bankers, commercial banks, asset managers, and other institutions. Prerequisite: Instructor Permission Offered: Fall and Summer</td>
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<td>FIN 4830</td>
<td>Econometrics for Finance (4 credits)</td>
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<td>This course focuses on econometric and statistical modeling with an emphasis on finance applications. Prerequisite: FIN 4170 Offered: Winter and Summer</td>
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<td>FIN 4860</td>
<td>Derivatives (4 credits)</td>
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<td>This course provides a theoretical foundation for the pricing of contingent claims and for designing risk-management strategies. It discusses more advanced material in financial derivatives and is intended for students who have a quantitative background and are interested in enhancing their knowledge of the way in which derivatives can be analyzed. This course covers option pricing models, hedging techniques, and trading strategies. It also includes portfolio insurance, value-at-risk measure, multistep binomial trees to value American options, interest rate options, and other exotic options. Prerequisite: FIN 4200 Offered: Spring</td>
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<td>FIN 4870</td>
<td>Strategic Finance (4 credits)</td>
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<td>Addresses theory, concepts, and techniques associated with asset management and creation of value from a strategic orientation. Links financial theory and practice to strategic and operational objectives of the firm, prepares student to incorporate risk and uncertainty into analytical decision-making process and to analyze divestiture, restructuring, and liquidation decisions. Prerequisites: FIN 4410 Offered: Fall and Spring</td>
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FIN 4885 - Investment Banking and External Financing (4 credits)

Considers the blend of theory and practice with regard to designing the appropriate capital structure of the firm as well as appropriate use of securities and process for raising capital in different financial markets.
Prerequisites: FIN 4410
Offered: Winter and Summer

FIN 4890 - Fixed Income Analysis (4 credits)

Emphasizes valuation and management of fixed income securities in prevailing environment of complex and innovative financial arrangements. Study of the nature of evolving markets, both domestically and internationally.
Prerequisite: FIN 4200
Offered: Spring and Winter

INFO 4140 - Business Databases (4 credits)

This is an introductory database course which covers enterprise database design, modeling and implementation.
Offered: Fall and Spring