

# MASTER OF SCIENCE IN FINANCIAL ECONOMICS

The Master of Science in Financial Economics focuses on mastery of topics at the interface of Economics and Finance. A large part of the field of Finance has roots in Economics. This program provides students who wish to build on that foundation with better understanding in the practical areas of Finance and Economics. This cross-disciplinary program brings together courses from a number of Stuart disciplines to offer a degree that is geared towards placing students on a path to career success in this growing area.

The Master of Science in Financial Economics degree provides students with comprehensive scientific, mathematical and applied skill sets required for testing and applying Financial and Economic Models. This program equips students with tools and critical thinking skills necessary to solve problems in Microeconomics, Industrial Organization, Asset pricing, Risk Management, Financial Engineering, or Corporate Finance. It will help prepare students for careers in the private, public and non-profit sectors.

Stuart School of Business is a global leader in bridging technology and business, offering distinctive education that trains students to become outstanding professionals in economics, finance, analytics, marketing, business, public administration, operations, and management.

Finance and Economics at Illinois Tech have a prestigious history that dates back to the late 1800s, with some of the nation's first courses in "Family and Consumer Science" (including "Home Economics" and "Household Management") being offered by the Lewis Institute, Stuart's original home, and the Institute's subsequent formation of the Department of Business and Economics in 1926.

Over a period of more than 125 years, building on curricular innovations by Julia A. Beveridge and George N. Carman, and on foundational scholarly works by trailblazing Illinois Tech scholars Herb A. Simon (author of Administrative Behavior, later awarded the Nobel Prize in Economics), Karl Menger (developer of the St. Petersburg paradox in economics) and Abe Sklar (developer of the Copula in financial modeling), the Stuart School of Business has refined education in business disciplines.

A long-standing leader in curricular innovation, in 1990, building on the foundational works of numerous Illinois Tech scholars, and Harold L. Stuart's own contributions to finance and the broader business community, the Stuart School of Business established quantitative finance as an academic discipline, with a world's first postgraduate Master's program in Financial Markets and Trading – a program that highlighted a new model for embedding into a postgraduate academic program the emphases on career readiness and connectedness with the business community, and transformed business school education.

Today, the Master of Science in Financial Economics continues Stuart's tradition of being a frontier innovator in the finance and economics disciplines, offering students outstanding concentrations and curricular and co-curricular opportunities that place them on the path to success.

## Curriculum

Code	Title	Credit Hours
<b>Required Core Courses</b>		<b>(33)</b>
MBA 505	Microeconomics and Game Theory	3
MSC 511	Mathematical Economics I - Microeconomics	3
MSC 512	Econometrics and Statistics I	3
MSC 514	Mathematical Economics II - Microeconomics and Macroeconomics	3
MSC 515	Econometrics and Statistics II	3
MSF 504	Valuation and Portfolio Management	3
MSF 506	Financial Statement Analysis	3
Students must select 4 elective courses from the following list. Three of those courses may be used to fulfill a concentration. See concentrations tab on this page for more information.		12
MSC 631	Theory of Finance I	3
MSC 623	Investments	3
MSF 544	Asset Valuation	3
MSF 505	Futures, Options, and OTC Derivatives	3
MSF 524	Models for Derivatives	3
MSF 545	Fixed Income Portfolio Management	3
MSF 555	Credit Risk Management	3
MSF 554	Market Risk Management	3
MSF 566	Time Series Analysis	3
MSF 534	Corporate Finance	3
MSF 535	Investment Banking and Venture Capital	3
MSF 544	Asset Valuation	3
MSF 525	Term Structure Modeling and Interest Rate Derivatives	3
MSF 546	Quantitative Portfolio Management	3
MSF 547	Machine Learning for Financial Markets	3
MSF 568	Energy Commodities Analytics and Trading	3
MSF 577	High Frequency Finance and Technology	3
MSF 595	Entrepreneurial Finance	3
MSF 597	Independent Study in Finance	3
MSC 516	Optimization II	3
MSC 517	Analytics for Decision Making	3
MSC 518	Marketing Research and Engineering	3
MSC 544	Equity Valuation	3
MSC 554	Market Risk Management	3
MSC 555	Credit Risk Management	3
MSC 611	Philosophy of Management	3
MSC 612	Advanced Research Methods	3

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MSC 613	Structured Fixed Income Portfolios	3
MSC 614	Quantitative Investment Strategies	3
MSC 615	Predictive Analytics	3
MSC 621	Corporate Finance	3
MSC 622	Enterprise Risk Management	3
MSC 632	International Finance Theory	3
MSC 651	Quantitative Marketing Models	3
MSC 652	Supply Chain Analytics	3
MSC 653	Current Topics in Marketing Analytics	3
MSC 654	Social Network Analytics	3
MSC 655	Visual Analytics - Data Analytics & Visualization	3
MSC 697	Special Research Issues	3
<b>Total Credit Hours</b>		<b>33</b>