

# MASTER OF SCIENCE IN FINANCE

Successful finance experts need to understand how the industry's key players—commercial and investment banks, investment management companies, hedge funds, private equity firms, and regulatory agencies—operate, thrive, and even fail. A Master of Science in Finance degree can help you understand and succeed, even in volatile financial conditions.

At Illinois Institute of Technology's Stuart School of Business, you'll study in a nationally ranked M.S. in finance program that is located in Chicago—home to the world's largest markets in financial derivatives.

In your M.S.F. courses, you'll learn the latest industry-relevant concepts and technologies from finance professors who are both practitioners and scholars, bringing their career knowledge and understanding of the markets directly to the classroom.

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 Finance continues Stuart's tradition of being a frontier innovator in the finance discipline, offering students outstanding concentrations and curricular and co-curricular opportunities that place them on the path to success.

## Curriculum

The Master of Science in Finance program requires 33 credit hours (11 courses) of graduate work. Students have the option to choose a concentration or design their own.

### MASTER OF FINANCE CURRICULUM

Code	Title	Credit Hours
Core Courses		18
MSF 501	Mathematics with Financial Applications	3
MSF 502	Statistical Analysis in Financial Markets	3
MSF 503	Financial Modeling	3
MSF 504	Valuation and Portfolio Management	3
MSF 505	Futures, Options, and OTC Derivatives	3
MSF 506	Financial Statement Analysis	3
Choose a concentration of 3 courses		9
Mathematical Finance		
MSC 623	Investments	3
MSC 631	Theory of Finance I	3
MSC 633	Theory of Finance II	3
Financial Technology		
MSF 547	Machine Learning for Finance and Business	3
MSF 577	High Frequency Finance and Technology	3
MSF 591	Global Markets and Technology	3
Portfolio Management		
MSF 544	Asset Valuation	3
MSF 546	Quantitative Portfolio Management	3
MSF 545	Fixed Income Portfolio Management	3

## Risk Management

MSF 554	Market Risk Management	3
MSF 555	Credit Risk Management	3
MSF 566	Time Series Analysis	3

## Quantitative Modeling and Trading

MSF 524	Models for Derivatives	3
MSF 525	Term Structure Modeling and Interest Rate Derivatives	3
MSF 568	Energy Commodities Analytics and Trading	3

Custom Concentration - requires program director approval

## Corporate Finance and Valuation

MSF 534	Corporate Finance	3
MSF 535	Investment Banking and Venture Capital	3
MSF 544	Asset Valuation	3

Choose from the following electives or from courses listed in the concentrations shown above 6

MSF 595	Entrepreneurial Finance	3
MSF 599	Special Topics in Finance	3
MSF 597	Independent Study in Finance	3

**Minimum degree credits required: 33**

## Core Requirement

All Master of Science in Finance students must complete the six core classes unless they have obtained written permission from the program director to substitute an alternative class for a core class.

## Free Electives

Up to two graduate-level electives may be taken from outside the courses prescribed above. These electives may be taken from other offerings at the Stuart School of Business, the Chicago-Kent College of Law, or Mies Campus graduate programs, provided that:

1. They are consistent with the Master of Science in Finance program objectives.
2. They have been approved, prior to the student's registration, by the Master of Science in Finance program director or the student's academic adviser.