

MASTER OF SCIENCE IN MATHEMATICAL FINANCE

FOR THE LOVE OF NUMBERS

If math is your passion, you have an affinity for logic and analysis, and you're highly motivated to take on a demanding curriculum, consider the Master of Science in Mathematical Finance (MSMF). A very strong undergraduate preparation in mathematics, physics, engineering, or economics is an essential prerequisite for this structured and intense program.

The MSMF program is grounded in the fundamental principles of finance, in conjunction with the analytical and computational tools of stochastic calculus and optimization theory. What you'll learn in this program goes far beyond the Black-Scholes-Merton option pricing formula and covers some of the most complex relations between various components of the modern financial system. Such knowledge is indispensable in the design of financial instruments and policies that foster technological innovation and economic behavior.

REAL WORLD EXPERIENCE

The three-semester, 17-month master's program includes a full-summer internship, a key component that gives students real-world experience and makes them more marketable to employers.

A CLEAR FOCUS

The graduate program in mathematical finance focuses on advanced analytical and computational method in finance—together with the necessary tools from mathematics and computer science—and emphasizes the interplay between these fields.

CAREER OPPORTUNITIES

Whether you're seeking a summer internship or a full-time position after graduation, you'll enjoy the support, strong faculty, student clubs and organizations, and our 45,000 School of Management and more than 290,000 University alumni worldwide.

97% of MSMF students had an internship during the summer of 2013. Students use direct support from SMG faculty and staff in job search, resume, and interview preparation.

SAMPLE CAREER PATHS

- ALGORITHMIC TRADING AND RISK MANAGEMENT
- FINANCIAL PRODUCT DESIGN AND IMPLEMENTATION
- QUANTITATIVE MODELING
- SECURITIES AND DERIVATIVE PRODUCTS MANAGEMENT

SELECTED EMPLOYERS AND INTERNSHIP SITES

- CHARLES RIVER DEVELOPMENT
- EPFR GLOBAL
- NOMURA
- STATE STREET GLOBAL ADVISORS
- UBS FINANCIAL SERVICES INC.

ILANIT SHTEIN

MSMF'12
MATHEMATICAL
FINANCE



Before starting the MSMF program, Ilanit Shtein spent several years as a math and physics instructor for cadets at the Israeli Air Force Flight Academy and as a JAVA software engineer for Comverse, a technology firm.

During her first semester, Shtein attended on-campus presentations by several financial firms including Duff & Phelps, a financial advisory firm, where she successfully landed an internship the following summer.

At Duff & Phelps, Shtein researched and developed a LIBOR (London Inter-Bank Offered Rate) market model for pricing interest rate derivatives, a project that drew on her coursework in stochastic calculus and fixed income securities. "The MF program was a wonderful preparation for the hard work required to independently research and implement financial models," she adds.

Shtein currently works as a financial analytics and derivatives senior associate at PricewaterhouseCoopers.

MSMF 2013 ENTERING CLASS PROFILE

ENROLLED STUDENTS	63	
APPLICATIONS RECEIVED	923	
SELECTIVITY/ACCEPTANCE RATE	17%	
MALE/FEMALE	62%/38%	
INTERNATIONAL (16 DIFFERENT COUNTRIES)	81%	
	MEAN	MID 80% RANGE
GRE QUANTITATIVE	164	158 - 169
UNDERGRADUATE GPA (4.0)	3.49	3.02 - 3.91
AGE	24	21 - 27

FACULTY DIRECTOR: AHMAD NAMINI anamini@bu.edu



Ahmad Namini is the executive director and adjunct associate professor in the Mathematical Finance program. Namini has served as a quantitative analyst/developer, desk strategist, and analytics head in the fixed income space for various hedge funds and investment banks including AlphaSimplex, Citigroup, Deutsche Bank, and Fortress Investment. He has a PhD in Computational Mechanics from the University of Maryland and is an alumnus of BU's Mathematical Finance program. Before joining BU he was a faculty member at the University of Miami for 10 years where he developed a research program in computational aerodynamics and parallel computing.

INTERVIEWS

After submitting an application, competitive candidates are invited to interview with us. This is a very important component of the selection process, and we invite as many candidates as possible based on our capacity.

APPLICATION DEADLINES

ENTRY DATE	COMPLETED APPLICATION RECEIVED BY	ADMISSION DECISION SENT BY
AUGUST 2014	NOVEMBER 13, 2013	JANUARY 17, 2014
	FEBRUARY 5, 2014	MARCH 14, 2014

SCHOLARSHIPS

Through our merit-based scholarship program, we provide a limited number of awards for candidates with outstanding academic aptitude and who contribute to diversity in the classroom. A separate application for scholarship consideration is not needed. Both domestic and international candidates will be considered for these awards.

MS IN MATHEMATICAL FINANCE CURRICULUM

**48
CREDITS**

16 FIRST YEAR FALL

Fundamentals of Finance
Statistical Methods of Mathematical Finance
Stochastic Methods of Mathematical Finance I
Stochastic Methods of Mathematical Finance II

16 FIRST YEAR SPRING

C++ Programming for Mathematical Finance
Fixed Income Securities
Stochastic Optimal Control and Investment
Computational Methods of Mathematical Finance

SUMMER

Optional Summer Internship

16 SECOND YEAR FALL

Portfolio Theory
Corporate Risk Management
Advanced Derivatives
Credit Risk

ADMISSION REQUIREMENTS

We'll review your application when you have submitted:

- Application form, including 3 essays
- Current resume
- Prerequisite form
- Two letters of recommendation
- Official copies of all university-level transcripts (undergraduate and graduate)
- GMAT or GRE results
- IELTS, PTE, or TOEFL results*
- \$125 application fee (paid online)

*Waiver eligibility, as well as additional information for international applicants, is available online.

ADMISSIONS INFORMATION

For admission requirements and visit options, please visit our website or review our factbooks. Ready to begin the application process?



APPLY ONLINE AT MANAGEMENT.BU.EDU/APPLY

If you have any questions about the application or admission process, please contact the Graduate Admission Office at 617-353-2670 or mmsmf@bu.edu.