MASTER OF FINANCIAL TECHNOLOGY

The Master of Financial Technology program is a professional masters program aiming at empowering students with knowledge in Fintech and data science, enabling them to understand, execute, and develop disruptive financial innovations using appropriate tools and techniques, and nurturing them to better prepare for the fast-growing demand in today's data-driven economy. This is a STEM program, including in its curriculum courses from the Department of Applied Mathematics, Department of Computer Science, Department of Information Technology and Management, and Stuart School of Business, and as such, it gives students the chance to benefit from the strength of all units. Students are required to complete a total of ten semester courses, including five core courses and five elective courses.

Admission Requirements

A Bachelor degree with honors from a recognized university or comparable institution is required for admission. A satisfactory score on the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) is encouraged but not mandatory. Satisfactory is GPA 3.0 and GRE 310.

Curriculum

Code	Title	Credit Hours
Core Courses		**(15)**
MATH 527	Machine Learning in Finance: From Theory to Practice	3
MATH 584	Mathematical Methods for Algorithmic Trading	3
MATH 575	Statistical Analysis of Financial Data	3
MATH 583	Wealth management and robo-advising	3
MATH 585	Decentralized Financial Engineering	3
Applied Mathematics Elective Courses		**(6)**
Select a minimum of two courses from the following:		6
MATH 542	Stochastic Processes	3
MATH 546	Introduction to Time Series	3
MATH 564	Regression	3
MATH 565	Monte Carlo Methods	3
MATH 567	Advanced Design of Experiments	3
MATH 569	Statistical Learning	3
MATH 574	Bayesian Computational Statistics	3
MATH 582	Mathematical Finance II	3
MATH 586	Theory and Practice of Fixed Income Modeling	3
MATH 588	Advanced Quantitative Risk Management	3
STAT 514	Applied Computational Statistics for Analytics	3
CS and ITM Security Elective Courses		**(6)**
Select a minimum of two courses from the following:		6
CS 445	Object Oriented Design and Programming	3
CS 458	Introduction to Information Security	3
CS 480	Introduction to Artificial Intelligence	3
CS 487	Software Engineering I	3
CS 525	Advanced Database Organization	3
CS 528	Data Privacy and Security	3
CS 549	Cryptography and Network Security	3
CS 553	Cloud Computing	3
ITMS 538	Cyber Forensics	3
ITMS 548	Cyber Security Technologies	3
ITMS 549	Cyber Security Technologies: Projects & Advanced Methods	3
ITMS 555	Mobile Device Forensics	3
ITMS 558	Operating Systems Security	3
ITMS 578	Cyber Security Management	3
Finance and Business Elective Courses		**(3)**
Select a maximum of one course from the following:		3
MBA 576	New Technology Ventures (Deep Tech Commercialization)	3
MSF 505	Futures, Options, and OTC Derivatives	3
MSF 526		3
MSF 546	Quantitative Portfolio Management	3
MSF 554	Market Risk Management	3
MSF 566	Time Series Analysis	3
MSF 567		3
MSF 574		3
MSF 577	High Frequency Finance and Technology	3
Total Credit Hours		**30**

Year 1

Semester 1	Credit Hours	Semester 2	Credit Hours
MATH 575	3	MATH 583	3
MATH 527	3	MATH 584	3
MATH 588	3	MSF 574	3
ITMS 548	3		
	12		**9**

Year 2

Semester 1	Credit Hours
MATH 565	3
MATH 585	3
CS 525	3
	9

Total Credit Hours: 30