

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:	3
MATH 584	Math for Algorithmic Trading	3
MATH 575	Financial Data Analysis	3
MATH 583	Robo-advising	3
MATH 585	DeFI 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	Applied Statistics	3
MATH 565	Monte Carlo Methods in Fin	3
MATH 567	Adv Design of Experiments	3
MATH 569	Statistical Learning	3
MATH 574	Bayesian Computational Stats	3
MATH 582	Mathematical Finance II	3
MATH 586	Ther&Prac Fixed Income Modelng	3
MATH 588	Advanced Quant Risk Mgmt	3
STAT 514	Appl Comp Stats for Analytics	3
CS and ITM Security Elective Courses (6)		
Select a minimum of two courses from the following: 6		
CS 445	Objct Orntd Dsgn Prgmng	3
CS 458	Intro to Information Security	3
CS 480	Introduction to Artificial Int	3
CS 487	Software Engineering	3
CS 525	Advanced Database Organization	3
CS 528	Data Privacy and Security	3
CS 549	Cryptography	3

CS 553	Cloud Computing	3
ITMS 538	Cyber Forensics	3
ITMS 548	Cyber Security Technologies	3
ITMS 549	CST: Projects & Adv Methods	3
ITMS 555	Mobile Device Forensics	3
ITMS 558	Operating Systems Security	3
ITMS 578	Cyber Security Mgmt	3
Finance and Business Elective Courses (3)		
Select a maximum of one course from the following:		3
MBA 576	New Technology Ventures	3
MSF 505	Futures/Option/OTC Derivatives	3
MSF 526	Computational Finance	3
MSF 546	Quant Investment Strategies	3
MSF 554	Market Risk Management	3
MSF 566	Time Series Analysis	3
MSF 567	Bayesian Econometrics	3
MSF 574	.NET and Database Management	3
MSF 577	High Frequency Finance	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	
		9
		Year 2
Semester 1	Credit Hours	
MATH 565	3	
MATH 585	3	
CS 525	3	
		9
Total Credit Hours: 30		