M.S. IN FINANCIAL TECHNOLOGY AND ANALYTICS

Master of Science in Financial Technology and Analytics (M.F.T.A.)

The M.F.T.A. degree provides an inter-disciplinary experience across finance, data analytics, and data sciences in response to the near-ubiquitous and growing demand for financial-analytic skills blended with technology. The program embraces a flexible curriculum that nimbly responds to changes in labor market demands, graduating students who possess the technological and analytical skills that meet these demands. Targeted areas range from corporate treasury, investment banking, security analysis, and financial data analytics to the digital transformations occurring in financial services, such as in consumer finance, business lending, payment systems, wealth management, and portfolio construction and monitoring.

A three-fold objective underlies the program, as follows.

1. Enhance technical expertise: The program is designed to increase knowledge in financial technology, including in programming languages, data analytics, machine learning, and blockchain technology;

2. Analyze financial data: The program aims to inform students on the analysis of time series and cross-sectional financial data, including the identification of trends, patterns, and insights – what the data reveal and conceal; and

3. Design financial products that provide innovative solutions: The program endeavors to advance the ability of students to create financial products that drive efficiency gains and cyber-security protection through digitalization and digital transformation.

The foundation for the M.F.T.A. program's two tracks, either data science or business analytics, consists of 32 hours of required courses. Three hours of elective courses bring the program to 35 total credit hours.

Code	Title	Hours
Core Courses:		
BMBA 9460	Financial Decision Making	2
BFIN 7219	Security Analysis	3
BFIN 7255	Financial Modeling	3
BFIN 7260	Financ Tech & Artificial Intel (Financial Technology and Artificial Intelligence)	3
BFIN 7261	Financial Software Skill (Financial Software Skills)	3
BFIN 7262	Machine Learning and Fin Analy (Financial Analytics and Machine Learning)	3
BFIN 7263	Algorithmic Trading (Algorithmic Trading and Application of Robotics)	3
BFIN 7264	Blockchain fr Fin & Crypto Ast	3
Subtotal		23
Select one of the following two tracks:		**9**
Data Science Track		
MATH 6811	Statistics for Data Science	
DASC 6010	Data Mining	
DASC 6911	Big Data Analytics	
OR		
Business Analytics Track		
BITM 7136	Big Data Analytics Bus Impact	
BSAN 7001	Intro Data Analytics - Bus Int	
BSAN 7011	Exploratory Analytic-Visualztn	
Elective course		**3**
Select one:		
BFIN 7215	Capital and Money Markets	
BFIN 7230	Portfolio Analysis	
BFIN 7231	Futures, Options and Swaps	
BFIN 7236	Corporate Finance	
BFIN 7245	Fixed Income Analysis	
DASC 7000	Data Visualization	
DASC 7111	Text Mining	
DASC 8211	Machine Learning	
DASC 8222	Data Engineering	
BMBA 9453	Accounting for Decision Makers	
BMBA 9459	Economics for Managers	
BFIN 7270	(MS Thesis)	
Total Hours		**35**