

New Program Proposal

Fintech, MS

Admission Requirements

Students must meet the general admission requirements for the Graduate School.

Degree Requirements

Core Course

FINANCE 6500	Financial Management	3
--------------	----------------------	---

Required Courses

Choose five of the following courses:	15
---------------------------------------	----

FINANCE 6503	Computer Applications in Finance
--------------	----------------------------------

FINANCE 6520	Security Analysis
--------------	-------------------

FINANCE 6524	Portfolio Analysis and Management
--------------	-----------------------------------

FINANCE 6570	Introduction to Fintech
--------------	-------------------------

FINANCE 6572	Financial Data Analytics
--------------	--------------------------

FINANCE 6574	Artificial Intelligence and Machine Learning in Finance
--------------	---

FINANCE 6576	Blockchain: Applications in Finance
--------------	-------------------------------------

Electives

Choose four of the following courses:	12
---------------------------------------	----

FINANCE 6501	Advanced Financial Management
--------------	-------------------------------

FINANCE 6503	Computer Applications in Finance
--------------	----------------------------------

FINANCE 6520	Security Analysis
--------------	-------------------

FINANCE 6521	Financial Forensics: The Science of Derivatives
FINANCE 6523	Fixed Income Analysis
FINANCE 6524	Portfolio Analysis and Management (if not used above)
FINANCE 6540	Financial Institutions and Financial Markets
FINANCE 6541	Commercial Bank Management
FINANCE 6542	Real Estate
FINANCE 6545	Venture Capital and Private Equity
FINANCE 6570	Introduction to Fintech (if not used above)
FINANCE 6572	Financial Data Analytics (if not used above)
FINANCE 6574	Artificial Intelligence and Machine Learning in Finance (if not used above)
FINANCE 6576	Blockchain: Applications in Finance (if not used above)
FINANCE 6580	International Financial Management
FINANCE 6581	Seminar in International Investments
FINANCE 6582	International Bank Management
FINANCE 6590	Seminar in Finance ¹
FINANCE 6591	Finance Internship ¹
SCMA 6345	Business Analytics and Data Mining
Total Hours	30

¹ Either FINANCE 6590 or FINANCE 6591 can count toward the degree but not both.

Rationale

In today's data-driven market, the field of finance in practice is going through substantial and transformative changes due to advances in financial technology (Fintech). Fintech competes with traditional financial methods in the delivery of financial services, changes the landscape of financial services provided to clients, and demands different skill sets from financial executives in corporations. The tools of Fintech, including machine learning, artificial intelligence, robo advisors, and algorithmic trading, are ubiquitous throughout the financial services industry affecting decisions in investments, portfolio management, trust services, and securities trading. Industry participants, including banks, brokerage houses, hedge funds, mutual funds, and trading exchanges, are in the midst of incorporating Fintech into their operations. In recent years, financial institutions have invested heavily in modernizing their services and empowering their operations with big data analytics, artificial intelligence / machine learning (AI/ML) algorithms, and other high-tech tools. These technologies are set to grow even faster as new startup companies enter into the business. For example, according to a PricewaterhouseCoopers report, the 2018 venture capital investments in artificial intelligence startup companies in the United States reached \$9.3 billion, an increase of 72 percent over the previous year. This new program is designed to sharpen tools for both finance professionals at all levels and other professionals who are interested in seeking specialized training in finance and enhancing their knowledge and skills in Fintech and data analytics. Thus, our new proposed program will help advance their careers in the field.