Naveen Jindal School of Management

Master of Science in Financial Engineering and Risk Management

36 semester credit hours minimum

Faculty

**Professors:** Ashiq Ali, Alain Bensoussan, Theodore E. Day, Vikram Nanda, Suresh Radhakrishnan, Michael J. Rebello, Harold Zhang, Zhiqiang (Eric) Zheng

**Associate Professors:** Nina Baranchuk, Zhonglan Dai, Robert L. Kieschnick Jr., Kelsey D. Wei, Han (Victor) Xia, Yexiao Xu, Yuan Zhang

**Assistant Professor:** Xiaoxiao Tang

**Clinical Professors:** John Barden, Randall S. Guttery, Jeffrey Manzi

**Clinical Associate Professor:** Carolyn Reichert

**Clinical Assistant Professor:** Liping Ma

**Senior Lecturer:** Debra Richardson

Degree Requirements

The Master of Science in Financial Engineering and Risk Management (MS FERM) at the Naveen Jindal School of Management is a STEM (Science, Technology, Engineering and Mathematics) cohort degree program that requires a minimum of 36 semester credit hours. This Fintech program provides students with the practical and theoretical knowledge needed to pursue careers involving financial data analytics, financial technology, or risk management. The program is designed for students with or without previous educational background in finance, but with a proclivity toward more quantitative approaches to managerial issues.

Students completing this program will have the knowledge necessary to take the Certified Corporate Financial Planning & Analysis Professional exam, the RMA Credit Risk Certification, the Financial Risk Manager (FRM) exam, the Enterprise Risk Management Certified Professional (ERMCP) exam, or similar finance related certifications. While the full-time program is a cohort program, a part-time program for working professionals is also offered. Both programs only begin each fall. Special tuition, fees and admissions requirements apply and the program is supported entirely by participant tuition/fees.

To apply for this degree program, an undergraduate degree is required (all majors are considered). Students must maintain a 3.0 grade-point average (GPA) in both core courses and in all graduate courses taken in the degree program, excluding program prerequisites to qualify for the MS degree.
Prerequisites

Students pursuing the Master of Science in Financial Engineering and Risk Management degree program are required to have completed course work in calculus, linear algebra, probability/statistics, and programming with a grade of "B" or better. Applicants who have not satisfied these requirements will need to satisfy these requirements prior to beginning their program of course work. The program director will work with such candidates on different ways to satisfy these requirements. Degree credit is not earned for program prerequisites, however, the grade achieved in prerequisites will count toward the student's grade-point average (GPA).

Course Requirements

Core Courses: 36 semester credit hours

Program director develops a program of study for students each term based on courses listed below.

- **FTEC 6002** Financial Engineering and Risk Management Internship
- **FTEC 6301** Financial Accounting Information and Analysis
- **FTEC 6302** Financial Markets and Institutions
- **FTEC 6303** Asset Pricing and Management
- **FTEC 6304** Corporate Finance and Risk Management
- **FTEC 6305** Introduction to Mathematics in Finance
- **FTEC 6306** Advanced Mathematics in Finance
- **FTEC 6310** Financial Information and Analytics
- **FTEC 6311** Financial Technology I
- **FTEC 6312** Financial Technology II
- **FTEC 6313** Cloud Computing and Cyber Security
- **FTEC 6319** Mathematics for Financial Analytics
- **FTEC 6320** Statistical Methods for Financial Analytics
- **FTEC 6321** Advanced Statistical Methods for Financial Analytics
- **FTEC 6331** Risk Evaluation and Management
- **FTEC 6334** Financial Applications of Machine Learning
- **FTEC 6V98** Financial Technology and Analytics Internship
- **FTEC 6V99** Special Topics in Financial Technology and Analytics