Master of Science in Financial Engineering and Risk Management

36 semester credit hours minimum

Faculty


Clinical Professor: John Barden

Associate Professors: Zhonglan Dai, Rebecca Files, Surya N. Janakiraman, Ramachandran (Ram) Natarajan, Gil Sadka, Yuan Zhang, Yibin Zhou

Clinical Associate Professor: Avanti P. Sethi

Assistant Professors: Bin Li, Meng Li, Ningzhong Li, Naim Bugra Ozel, Nir Yehuda, Jieying Zhang

Clinical Assistant Professor: John Gamino

Senior Lecturers: Arthur M. Agulnek, Anindita Bardhan, Tiffany A. Bortz, Richard Bowen, Carol Flannery, Mary Beth Goodrich, Jennifer G. Johnson, Chris Linsteadt, Joseph Mauriello, Matt Polze, Steven Solcher, Amy L. Troutman, Kathy Zolton

Visiting Assistant Professor: Lale Guler

Degree Requirements

The Master of Science in Financial Engineering and Risk Management at the Naveen Jindal School of Management is a cohort degree program that requires a minimum of 36 semester credit hours. Students learn the quantitative skills required to analyze financial information, engineer financial products, identify risks, and manage risks. 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. While many students will want to tailor their program to their interests, one can take the coursework necessary to prepare for either the Financial Risk Manager (FRM) exam or the Enterprise Risk Management Certified Professional (ERMCP) designation. 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 aggregate courses 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 (including multivariate calculus), linear algebra, probability and statistics, and programming with a grade of "B" or better. Applicants who have not satisfied these requirements may be admitted but will need to satisfy the prerequisites within the first 12 semester credit hours of graduate study. To do so, they will need to work out a course plan with the program director. 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: 18 semester credit hours

- **ACCT 6305** Accounting for Managers
- or **ACCT 6301** Financial Accounting
- **FIN 6301** Financial Management
- **FIN 6306** Quantitative Methods in Finance
- **FIN 6360** Options and Futures Markets
- **MECO 6303** Business Economics
- **MECO 6312** Applied Econometrics and Time Series Analysis

Elective Courses: 18 semester credit hours

Select six courses from the elective courses below:

- **ACCT 6312** Cybersecurity Fundamental
- **ACCT 6320** Database Foundations
- **ACCT 6336** Information Technology Audit and Risk Management
- **FIN 6340** Management of Financial Institutions
- **FIN 6342** Insurance and Risk Management
- **FIN 6352** Financial Modeling
- **FIN 6362** Quantitative Financial Management
- **FIN 6364** Portfolio Analysis and Management
- **FIN 6368** Financial Information and Analysis

FIN 6381 Introductory Mathematical Finance
FIN 6382 Numerical and Statistical Methods in Finance
FIN 6383 Financial Risk Management
FIN 6385 Enterprise Risk Management
FIN 6V98 Finance Internship
FIN 6V99 Special Topics in Finance
OPRE 6335 Risk and Decision Analysis