

MASTER OF SCIENCE MANAGEMENT SCIENCE AND ENGINEERING



Columbia Engineering in partnership with Columbia Business School are pleased to offer a STEM Master of Science in Management Science and Engineering program, with a three-semester curriculum designed for those who want to focus on management and engineering perspectives in solving problems of complex systems. A key feature of this program is the year-long Operations Consulting where students immediately engage with industry clients to solve their business and operational challenges. Students select from 3-4 consulting projects to gain industry experience while taking courses.

“MS&E students are enrolled in my Operations Consulting course, a year-long hands-on laboratory in which students ‘learn by doing’ in real-world consulting projects for manufacturing and service, domestic and global, and start-up companies from all sectors. Student teams focus on identifying, modeling, and testing operational improvements and innovations with potential to enhance the profitability and achieve sustainable competitive advantage for their sponsor companies. This experience is a tremendous opportunity for professional growth and job placement for our students.”

Dr. Soulaymane Kachani
Senior Vice Provost



Application Deadline

Priority: January 15 | Regular: February 15
<https://ieor.columbia.edu/management-science-and-engineering-mse>



Department of Industrial Engineering & Operations Research

 admit@ieor.columbia.edu

 500 W. 120th Street, Room 315, New York, NY 10027

“Our career team is passionate about connecting with students and leveraging our experience to guide them towards ideal job placements tailored to their skills and ambitions.”

Karina Ikeda
Career Placement
Officer, MSE



Course Highlights

Core Classes

- Optimization Models and Methods
- Probability, Statistics, and Simulation
- Operations Consulting
- Stochastic Models
- Professional Development & Leadership

Decision, Risk, and Operations Electives

- Service Operations
- Game-Theoretic Business Strategy
- Applied Regression Analysis
- Demand and Supply Analytics
- Digital Marketplaces
- Business Analytics
- Sports Analytics

Analysis Electives

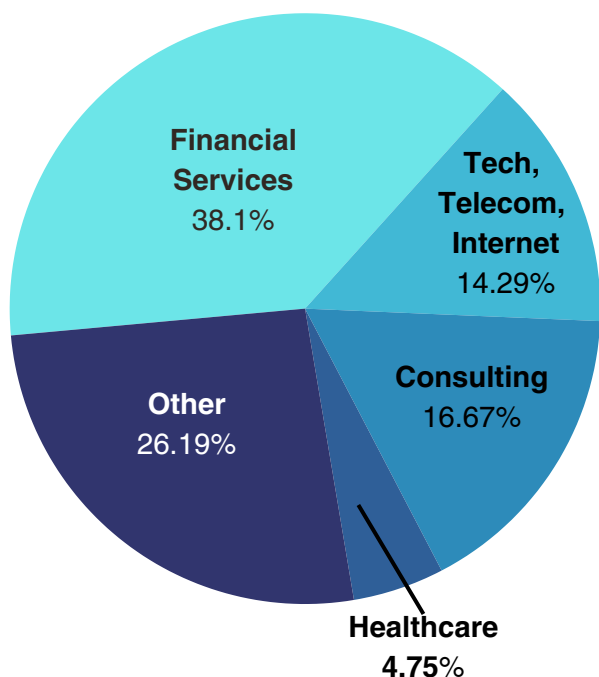
- Game Theory
- Analytics on the Cloud
- Deep Learning for Operations
- Data Mining for Engineers
- Computational Discrete Optimization
- Visualization & Storytelling with Data
- AI for Operations Research

Management Electives

- Human-Centered Design & Innovation
- Corporate Finance
- Entrepreneurial Business Creation
- Global Capital Markets
- Lean Launchpad
- Policy for Privacy Technologies
- Designing Digital Operating Models

Career Outcomes for Alumni

**MSE 2023 Grads*



For more information, visit ieor.columbia.edu