

Master of Science

# BUSINESS ANALYTICS

The Master of Science in Business Analytics (MSBA) is offered by Columbia Engineering in partnership with Columbia Business School. The program focuses on educating students to leverage advanced quantitative models, algorithms, and data for making decisions to improve business operations. Students pursuing this 36-point degree program are provided with a rigorous exposure to optimization and stochastic modeling, machine learning and data analysis tools for handling structured and unstructured data, exploratory and descriptive analysis, predictive modeling, and prescriptive analytics.



**Dr. Adam Elmachtoub**  
Assistant Professor



*"The MSBA program is the ideal degree program for students looking to leverage data into operational impact - a pressing need for many organizations. It provides students with the optimal combination of operations research and data analysis tools, alongside with hands-on projects on real world problems, for addressing business analytics challenges."*

**Meet an  
Admissions Officer**

Mondays & Fridays  
10:30-11:30am

**RSVP**  
[admit@ieor.columbia.edu](mailto:admit@ieor.columbia.edu)

**Application Deadline  
February 15**

of the year of matriculation

[msba.engineering.columbia.edu](https://msba.engineering.columbia.edu)  
[ieor.columbia.edu/ieor-admissions](https://ieor.columbia.edu/ieor-admissions)



There's nothing like real-world experience to help you get a great real-world job.

At Columbia, every MSBA student is required to work on engagements for actual clients on analytics projects. These experiences are provided to the students as part of the semester-long Analytics Capstone Projects course. This engagement greatly enhances our students' marketability to employers and cultivates them to be leading practitioners in Analytics, Technology, Financial and Professional Services, Advertising and Communications Media, Start-ups and more.



**Gerald Cotiangco**  
MSBA Career  
Placement Officer

*"Companies across all sectors and industries - from energy, finance, health care, mass media, transportation, telecommunications, and more - are actively seeking candidates who understand business drivers and challenges and how to make better data-driven decisions. That's why employers are excited to learn about and recruit from Columbia's MSBA program!"*

## Course Highlights

- Analytics in Practice
- Analytics on the Cloud
- Business Analytics
- Data Analytics
- Data Mining
- Demand & Supply Analytics
- Game Theory
- Healthcare Operations Management
- Machine Learning
- Managerial Negotiations
- Optimization Models & Methods
- Professional Development Leadership
- Sports Analytics
- Stochastic Models
- Strategic Consumer Insights
- Tools for Analytics
- Visualization & Storytelling with Data

