

Business Analytics

Zicklin's specialized Master's in Business Analytics (MSBA) equips business professionals with the tools necessary to manage data ethically for business success. Students will become expert data analysts who can explore patterns, reveal trends, uncover relationships, and transform data into a catalyst for business growth. More critically, they will also gain the knowledge needed to initiate and evaluate projects that harness this deluge of data.

The MSBA opens the door to exciting new careers in the fast-growing fields of data science and business analytics. The degree is designed for students who are analytically capable and have taken at least one statistics course at the college level in the last five years. The program introduces students to core concepts in Business Analytics with a set of required courses. Students then have the flexibility to specialize in one of the two tracks – data analytics or marketing analytics.

MS in Business Analytics Program Learning Goals

Data Management	Students will be able to apply methods, tools, and software for acquiring, managing/storing, and accessing structured and unstructured data. Students will also demonstrate knowledge of the strategic uses of data.
Foundational Statistical /Quantitative Skills	Students will be able to prepare data for statistical analysis, perform basic exploratory and descriptive analysis as well as employ foundational statistical techniques needed to analyze data.
Advanced Statistical /Quantitative Skills	Students will be able to build and interpret advanced predictive models. Students will be able to combine business rules and mathematical models to optimize business decisions from data.
Ethical Awareness	Students will be able to articulate an understanding of ethical issues in all phases of business analytics with particular emphasis on the new possibilities afforded by the emergence of big data.
Professional Communication	Students will be able to explain complex analytical models and their results orally and in writing to technical and non-technical/lay audiences.
Knowledge Integration	Students will be able to apply the three key types of analytics (descriptive, predictive, and prescriptive) in a business domain to add value to business decision-making.

MS in Business Analytics Curriculum

Courses in Specialization (33 - 34 credits)		
Required (21 credits)		
BUS 9420*	Communications and Ethics for Business Analytics	3 credits
STA 9661	Applied Statistics for Business Analytics	3 credits
CIS 9340	Principles of Database Management Systems	3 credits
CIS 9650	Programming for Business Analytics	3 credits
CIS 9660	Data Mining for Business Analytics	3 credits
MGT 9500	Management Science	3 credits
(OR)	(OR)	
OPR 9721	Intro to Quantitative Modeling	
BUS 9430**	Business Analytics Project Lifecycle Management	3 credits

*Students who intend to pursue a career in accounting can substitute BUS 9420 with [BUS 9557](#) Managerial Skills for Accountancy Professionals with the permission of an academic advisor (ZicklinMSPrograms@baruch.cuny.edu).

** Required Capstone course

Concentration in Data Analytics

Take the two required courses (6 credits) below and 6 credits from the list of electives to complete the Data Analytics concentration

CIS/STA 9760	Big Data Technologies	
CIS 9655	Data Visualization	3 credits
		3 credits

Concentration in Marketing Analytics

Take the two required courses (6 credits) below and 6 credits from the list of electives to complete the Marketing Analytics concentration

MKT 9737	Marketing Analytics	3 credits
MKT 9738	Web Analytics and Intelligence	3 credits

Free Electives (6 credits)

CIS 9440	Data Warehousing and Analytics	3 credits
CIS 9655	Data Visualization	3 credits
CIS 9310	Object-Oriented Programming I	3 credits
CIS/STA 9760	Big Data Technologies	3 credits
CIS/STA 9665	Applied Natural Language Processing	3 credits
STA 9797 ***	Advanced Data Analysis	3 credits
STA 9890 ***	Statistical Learning for Data Mining	3 credits
STA 9891 ***	Machine Learning for Data Mining	3 credits
STA 9701 ***	Times Series: Forecasting and Statistical Modeling	3 credits
OPR 9730 ***	Simulation Modeling and Analysis	3 credits
MKT 9780	Digital Marketing	3 credits
MKT 9782	Search Engine Marketing	1.5 credits
MKT 9783	Social Media Marketing	1.5 credits
MKT 9785	Digital Marketing Strategy	3 credits
MKT 9737	Marketing Analytics	3 credits

MKT 9738	Web Analytics and Intelligence	3 credits
MKT 9740	Data-driven Marketing Strategy	3 credits
MKT 9741	Marketing Analytics with Big Data	3 credits
STA 9713***	Financial Statistics	3 credits
ECO 9723***	Econometrics - Theory and Applications I	3 credits
FIN 9770***	Corporate Finance	3 credits
ACC 9806***	Financial Statement Analysis and Reporting	3 credits
ACC 9886***	Data Analytics in Accounting	3 credits
TAX 9861***	Federal Income Taxation: Theory and Practice	3 credits
***Electives have additional prerequisites but may be of interest to students who have the necessary background. Students may substitute elective courses with ACC/TAX designation with other advanced accounting or tax courses based on their background.		