BUSINESS ANALYTICS (M.S.)

The Gabelli School Master of Science in Business Analytics (MSBA) will help you to see the big picture that your future employer is going to ask you to draw. The curriculum teaches you to pull valuable conclusions from a wide range of information types: big data, business performance data, web and text content, and more.

The Gabelli School MSBA provides skills in:

- Artificial intelligence and deep learning
- Business analytics
- Data engineering
- DevOps engineering for data science
- Programming for analytics and data science
- Statistical analytics for business

The MSBA has two schedule choices; a one-year full-time program or a part-time program spread over a longer time frame, such as two years —ideal for professionals who don't want to leave their jobs while they pursue the degree.

To learn more about the M.S. in Business Analytics, visit the Fordham website.

Requirements

The 30-credit program consists of 10 courses (seven required and three electives), across three semesters. Students can earn the MSBA in one year of full-time study or two years of part-time study. The schedule below outlines the full-time format; part-time students coordinate their coursework with guidance from the program director and academic adviser.

Through the selection of elective courses, the program allows students to specialize in one of four career-oriented tracks, according to their interests. They can choose from tracks in:

- Artificial Intelligence and Deep Learning
- Business Analytics
- Programming for Analytics and Data Science
- Statistical Analytics for Business

For details on MSBA tracks, see the Tracks (p. 2) tab.

Fall		Credits
BYGB 7973	Database Management	3
BYGB 7978	Web Analytics	3
BYGB 7967	Data Mining for Business	3
One elective course (see options below)		3
	Credits	12
Spring		
BYGB 7975	Bus Analytics for Managers	3
BYGB 7977	Text Analytics	3
BYGB 7990	Big Data Analytics	3
One elective course (see options below)		3
	Credits	12
Summer		
BYGB 7988	Bus Perf Mgmt Risk Analytics	3
One elective course (see options below)		3
	Credits	6
	Total Credits	30

Electives

Courses in this group have the BUAN attribute.

Course	Title	Credits
ACGB 719G	Audit Data Analytics	3
ACGB 719H	IT Audit and Information Assurance	3
BEGB 6220	Econ Analysis & Bus Decisions	3
DGGB 6820	Statistics	3
DGGB 7844	Stat Methods and Comp I	3
FNGB 74BG	Auto Trading Systems - Intro	3
GFGB 6005	Financial Modeling	3
ISGB 6910	Business Tech & Analytics	3
ISGB 7902	System Analysis & Design	3
ISGB 7910	Info Systems Strategy & Mgmt	3
ISGB 7922	Healthcare IT	3
ISGB 7924	Mobile E-Commerce and Apps	3
ISGB 7932	Accounting Info System	3
ISGB 7933	Audit Data Analytics	3
ISGB 7934	Artificial Intelligence	3
ISGB 7942	Optimization Models in Bus	3
ISGB 7943	Programming with Python	3
ISGB 7944	Sports Analytics	3
ISGB 7955	Project Management	3
ISGB 7980	Bus Modeling w/Adv Sprdsheets	3
ISGB 7985	Data Warehousing	3
ISGB 799D	Cybersecurity for Business	3
ISGB 799R	IT Audit and Information Assurance	3
ISGB 799V	R Statistical Programming	3
ISGB 799X	Fintech -An Introduction	3
ISGB 799Y	Blockchain Tech & App Dev	3
ISGB 799Z	Deep Learning	3
ISGB 79AA	Advanced Python for Financial Programming	3
ISGB 79AC	Cybersecurity Analytics for Business	3
ISGB 79AD	Digital Forensics	3
ISGB 79AE	Robotic Process Automation	3
MKGB 7730	Research Methods	3
MKGB 779I	Data-Driven Marketing Decisions	3
MKGB 77AA	Marketing Decision Models	3
MKGB 879T	Mktg with Big Data	1.5
MKGB 879X	Applied CRM	1.5
OPGB 6627	Operations Management	3
QFGB 8911	Financial Markets and Modeling	2
QFGB 8923	Machine Learn & Econometrics	2
QFGB 8925	Simulation Applications	2
QFGB 8943	Large-Scale Data Modeling	2
QFGB 8955	Computational Finance	2

QFGB 8959	Machine Learning for Finance	2
QFGB 8968	Blockchain Technology and Application Development	3
SDGB 7840	Applied Regression Analysis	3
SDGB 7841	Statistical Theory I	3
SDGB 7842	Statistical Theory II	3
SDGB 7843	Judgment and Decision Making	3
SDGB 7844	Stat Methods and Comp I	3
SDGB 7847	Machine Learning for Stats	3
SDGB 7848	Observational Studies	3
SDGB 7851	Measurement and Data Visualization	3

Students seeking special permission to count a course without the BYGB or ISGB subject code as an elective must follow the below, three-step approval process.

Only 6000-level or above courses may be considered for electives to count towards the MSBA.

1. The student should send a detailed petition to the MSBA Program Director explaining why they are considering a non-BYGB or ISGB subject code course as an elective.
2. The student should request permission from the instructor of the relevant course to join the elective, who should then send an email to the student authorizing the student's enrollment in the course. The student should forward that email to the MSBA Program Director and MSBA Advising Dean.
3. The MSBA Program Director and MSBA Advising Dean will discuss the request, giving it due consideration, and render a decision on whether the non-BYGB or ISGB subject code course may be accepted as an elective.

Note: all advanced ISGB courses with prerequisites must be met (please discuss with the Program Director/Advising Dean).

Tracks

For students who are not interested in any of the below tracks, another option is to create an optimal mix of electives across the tracks, in consultation with the program director and area chair.

Artificial Intelligence and Deep Learning Track

Courses in this group have the BUAI attribute.

Course	Title	Credits
ISGB 7934	Artificial Intelligence	3
ISGB 799Z	Deep Learning	3
ISGB 79AA	Advanced Python for Financial Programming	3
ISGB 79AE	Robotic Process Automation	3

Business Analytics Track

This track is for students interested in specializing in the analytics and data science aspects of information technology. Courses in this group have the BUBA attribute.

Course	Title	Credits
ISGB 6910	Business Tech & Analytics	3
ISGB 7933	Audit Data Analytics	3
ISGB 7942	Optimization Models in Bus	3
ISGB 7944	Sports Analytics	3
ISGB 7980	Bus Modeling w/Adv Sprdsheets	3
ISGB 7985	Data Warehousing	3
ISGB 799R	IT Audit and Information Assurance	3
ISGB 79AC	Cybersecurity Analytics for Business	3
ISGB 79AD	Digital Forensics	3

Programming for Analytics and Data Science Track

This track is for students who wish to delve deeper into the development of analytics and data science applications. Courses in this group have the BUDS attribute.

Course	Title	Credits
ISGB 7943	Programming with Python	3
ISGB 799V	R Statistical Programming	3
ISGB 799X	Fintech -An Introduction	3
ISGB 799Y	Blockchain Tech & App Dev	3
ISGB 79AA	Advanced Python for Financial Programming	3
ISGB 79AE	Robotic Process Automation	3

Statistical Analytics for Business Track

Courses in this group have the BUSA attribute.

Course	Title	Credits
ISGB 799V	R Statistical Programming	3
SDGB 7840	Applied Regression Analysis	3
SDGB 7841	Statistical Theory I	3
SDGB 7842	Statistical Theory II	3
SDGB 7843	Judgment and Decision Making	3
SDGB 7844	Stat Methods and Comp I	3
SDGB 7851	Measurement and Data Visualization	3