

# Quantitative Methods and Modeling

Effective Spring 2018 - students entering in Fall 2017 may opt to follow this new curriculum. MS students following an earlier curriculum should contact their program advisor at [ZicklinMSPrograms@baruch.cuny.edu](mailto:ZicklinMSPrograms@baruch.cuny.edu) or review the appropriate bulletin for the year they entered.

For additional program information see the [Zicklin School website](#)

A high priority for many organizations today is the transformation of an enormous amount of available data into usable information. Consequently, many companies are looking for individuals who are well-versed in modeling, statistical analysis, and computer information systems as the job market for people who have the ability to deal effectively with information is expanding at a tremendous pace. The Master of Science in Quantitative Methods and Modeling program is designed to provide a broad spectrum of basic quantitative skills; thus, the required specialization courses span the areas of operations research, statistics, and computer information systems. The flexible elective requirements permit the creation of a four-course quantitative sequence tailored to a student's professional and/or educational objectives. Students also have the option of doing a graduate internship. The MS program conforms with the DHS - STEM program so that international students who graduate from the MS/QMM program may be eligible for an additional 24-month extension on their optional practical training (OPT).

<b>Preliminary Courses (7 credits)</b>		
Students with appropriate academic background will be able to reduce the number of credits in preliminary requirements.		
MTH 2610	Calculus I*	4 credits
STA 9708	Applied Statistical Analysis for Business Decisions	3 credits
**MTH 2610 is an undergraduate course. Entering students are strongly encouraged to complete a minimum of three credits of calculus before starting the MS program in order to waive this math requirement.		
<b>Courses in Specialization (31.5 credits)</b>		
<b>Required (16.5 credits)</b>		
BUS 9551	Business Communication I**	1.5 credits
CIS 9340	Principles of Database Management Systems	3 credits
OPR 9721	Introduction to Quantitative Modeling	3 credits
OPR 9730	Simulation Modeling and Analysis	3 credits
OPR 9750	Basic Software Tools for Data Analysis ( STA 9750 )	3 credits
STA 9700	Applied Regression Analysis	3 credits
<b>Electives (15 credits)</b>		
Students can select any OPR, STA, CIS, or MTH course totaling 15 credits. With approval of the department advisor, students may select quantitatively-oriented courses in other areas. Students may select appropriate Graduate Internship courses BUS 9801 - BUS 9803.		

\*Effective for all MS-QMM students admitted in spring 2016 or later. Students admitted prior to spring 2016 should consult their preliminary course evaluation and/or waiver exam results, since other requirements and conditions may apply.