

Quantitative Methods and Modeling (MS)

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 17-month extension on their optional practical training (OPT).

Required for all MS Students*		
BUS 9551	Business Communication I	1.5 credits
or		
Program specific, 1.5 credit equivalent business communication instruction approved by the Graduate Curriculum Committee.		
Preliminary Courses (8.5 - 10 credits)		
Students with appropriate academic background will be able to reduce the number of credits in preliminary requirements.		
English language modules offered by the Division of Continuing and Professional Studies are required for non-native English speakers, and may be waived based on a waiver exam.		
MTH 2610	Calculus I*	4 credits
ACC 9110	Financial Accounting	3 credits
or		
ECO 9730	Fundamentals of Microeconomics	1.5 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.		
Courses in Specialization (30 credits)		
Required (16.5 credits)		
CIS 9001	Information Systems for Managers 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
Electives (13.5 credits) It is recommended that the student select at least three credits in each of the three areas: OPR, STA, and CIS. A maximum of 9 credits may be selected from any one area. With approval of the department advisor students may select BUS 9801 - BUS 9803 Graduate Internship or an approved quantitatively oriented course offered outside the department.		

*Effective spring 2016.