

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).

English Language Proficiency*		
Students who completed their undergraduate education in a non-English speaking country will be required to take non-credit bearing modules in Grammar Troubleshooting and American English Pronunciation offered by the Division of Continuing and Professional Studies. These modules may be waived based on a waiver exam. The modules are not required for students who completed a four-year degree in an English-speaking country.		
Preliminary Courses (8.5 - 10 credits)		
Students with appropriate academic background will be able to reduce the number of credits in preliminary requirements.		
MTH 2610	Calculus I*	4 credits
ACC 9110**	Financial Reporting	3 credits
or		
ECO 9730***	Firms in the Global Economy	1.5 credits
STA 9708+	Managerial Statistics	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 (31.5 credits)		
Required (18 credits)		
BUS 9551*	Business Communication I	1.5 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 adviser students may select BUS 9801 - BUS 9803 graduate Internship or an approved quantitatively oriented course offered outside the department.

* Effective for all MS-Quantitative Methods and Modeling 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.

** Formerly ACC 9110 Financial Accounting ; new course title effective Spring 2017.

*** Formerly ECO 9730 Fundamentals of Microeconomics; new course title effective Spring 2017.

+Formerly STA 9708 Applied Statistical Analysis for Business Decisions; New course title effective Spring 2017.