

# Quantitative Methods and Modeling (MS)

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

The MS in quantitative methods and modeling (QMM) is a 30-credit program. The QMM 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 five-course quantitative sequence tailored to a student's professional and/or educational objectives. Students also have the option of doing a graduate internship. The list of preliminary and specialization courses is given below.

|                                                                                                                                                                                                            |                                                                        |             |
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| <b>Preliminary Courses (8.5 - 10 credits)</b>                                                                                                                                                              |                                                                        |             |
| 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.                            |                                                                        |             |
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| <a href="#">MTH 2610</a>                                                                                                                                                                                   | Calculus I*                                                            | 4 credits   |
| <a href="#">ACC 9110</a>                                                                                                                                                                                   | Financial Accounting                                                   | 3 credits   |
| <b>or</b>                                                                                                                                                                                                  |                                                                        |             |
| <a href="#">ECO 9730</a>                                                                                                                                                                                   | Fundamentals of Microeconomics                                         | 1.5 credits |
| <a href="#">STA 9708</a>                                                                                                                                                                                   | 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 (30 credits)</b>                                                                                                                                                              |                                                                        |             |
| <b>Required (16.5 credits)</b>                                                                                                                                                                             |                                                                        |             |
| <a href="#">CIS 9001</a>                                                                                                                                                                                   | Information Systems for Managers I                                     | 1.5 credits |
| <a href="#">CIS 9340</a>                                                                                                                                                                                   | Principles of Database Management Systems                              | 3 credits   |
| <a href="#">OPR 9721</a>                                                                                                                                                                                   | Introduction to Quantitative Modeling                                  | 3 credits   |
| <a href="#">OPR 9730</a>                                                                                                                                                                                   | Simulation Modeling and Analysis                                       | 3 credits   |
| <a href="#">STA 9750</a>                                                                                                                                                                                   | Basic Software Tools for Data Analysis<br>( <a href="#">OPR 9750</a> ) | 3 credits   |
| <a href="#">STA 9700</a>                                                                                                                                                                                   | 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.