

# MATHEMATICAL BUSINESS, B.S.

## Requirements

Students interested in pursuing this joint major must be granted formal admission to the program upon application to the School of Business' Committee on Admissions, Continuation, and Scholarships. (<https://bulletin.wfu.edu/undergraduate/school-business/undergraduate-business-program-admission/>) To graduate from Wake Forest University with a major in mathematical business, the student must satisfy the requirements for graduation of both the Department of Mathematics and Statistics (<https://bulletin.wfu.edu/undergraduate/departments-programs/mathematics-statistics/>) and the School of Business (<https://bulletin.wfu.edu/undergraduate/school-business/requirements-graduation/>). This interdisciplinary program, consisting of no more than 51.5 hours, prepares students for careers in business with a strong background in mathematics. The major has the following course requirements:

| Code   | Title   | Hours |
|--|---|-------|
| <b>Required Major Courses</b>                |   |       |
| MST 113                                      | Multivariable Calculus  | 4     |
| MST 121                                      | Linear Algebra I  | 3     |
| MST 253                                      | Operations Research   | 3     |
| STA 112                                      | Introduction to Regression and Data Science                                 | 3     |
| MST/STA 353<br>or STA 310                    | Probability Models<br>Probability   | 3     |
| ACC 221                                      | Introductory Management Accounting  | 3     |
| BEM 211                                      | Organizational Behavior   | 3     |
| BEM 221                                      | Principles of Marketing   | 3     |
| BEM 241                                      | Production and Operations Management  | 3     |
| BEM 251                                      | Management Information Systems  | 3     |
| BEM 261                                      | Legal Environment of Business   | 3     |
| BEM 388                                      | Management Simulation   | 1.5   |
| BEM 392                                      | Seminar in Mathematical Business Analysis                                   | 3     |
| FIN 231                                      | Principles of Finance   | 3     |
| Select a minimum of two additional courses * |   | 6     |
| <b>Prerequisites for Admission</b>           |   |       |
| ACC 111                                      | Introductory Financial Accounting   | 3     |
| ECN 150                                      | Introduction to Economics   | 3     |
| MST 112                                      | Calculus with Analytic Geometry II  | 4     |
| STA 112                                      | Introduction to Regression and Data Science                                 | 3     |
| <b>Recommended Electives</b>                 |   |       |
| BEM 383                                      | Seminar in Negotiations   | 3     |
| BEM 371<br>or BEM 372                        | Strategic Management<br>Strategic Management in Entrepreneurial Firms       | 3     |
| CSC 111<br>& CSC 112                         | Introduction to Computer Science<br>and Fundamentals of Computer Science ** | 8     |
| STA 362                                      | Multivariate Statistics **  | 3     |
| STA 363                                      | Introduction to Statistical Learning **                                     | 3     |

\* Chosen from among mathematics, statistics, economics, and business, with at least one being a mathematics or statistics course (chosen from 3-hour courses at the 300-level or higher), excluding MST 381.

\*\* CSC 111 and/or CSC 112 and STA 362 and/or STA 363 are strongly recommended electives for the major.

## Honors

Mathematical business majors with a grade point average of at least 3.0 on all college work and a minimum grade point average of 3.5 in the major are invited to apply for admission to the honors program in mathematical business. A project, paper, or readings, and an oral presentation or examination are required. Those who successfully complete the requirements specified by the School and the Mathematics Department graduate with the designation "Honors in Mathematical Business." For additional information, interested students should consult a member of the faculty of the Mathematics Department or the Wake Forest School of Business.