

# 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 Statistical Sciences (<https://bulletin.wfu.edu/undergraduate/departments-programs/statistical-sciences/>) and the School of Business (<https://bulletin.wfu.edu/undergraduate/school-business/requirements-graduation/>). This interdisciplinary program, consisting of a minimum of 49.5 hours, prepares students for careers in business with a strong background in mathematics. The major has the following course requirements:

Code	Title	Hours
<b>Prerequisites for Admission</b>		
ACC 111	Introductory Financial Accounting	3
ECN 150	Introduction to Economics	3
MTH 112	Calculus with Analytic Geometry II	4
STA 112	Introduction to Regression and Data Science	3
ACC 111 and STA 112 count toward Core Requirements		
<b>Core Requirements</b>		
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
FIN 231	Principles of Finance	3
<b>Required Major Courses</b>		
BEM 392	Seminar in Mathematical Business Analysis	3
MTH 121	Linear Algebra I	3
MTH 253	Operations Research	3
STA 310	Probability	3
STA 363	Introduction to Statistical Learning	3
Select a minimum of two additional courses *		6
<b>Recommended Electives</b>		
BEM 383	Seminar in Negotiations	3
BEM 371	Strategic Management	3
or BEM 372	Strategic Management in Entrepreneurial Firms	
CSC 111 & CSC 112	Introduction to Computer Science and Fundamentals of Computer Science	8
STA 362	Multivariate Statistics	3

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*Chosen from 3 or 4-hour courses among business, computer science, economics, mathematics, or statistics, excluding MTH 381 and STA 383. One elective must be 300-level or higher in either mathematics or statistics; the other elective must be either 200-level or higher in one of these five areas, or CSC 111 or CSC 112.*

## Honors

Mathematical Business majors with a minimum cumulative grade point average of 3.0 and a minimum grade point average of 3.5 in the major are eligible to apply for admission to the honors program in mathematical business. The application is available from the program co-directors, and must be submitted prior to the start of a student's senior year. Honors students write a paper under the supervision of a faculty advisor and also present their work. Those who successfully complete the requirements specified by the School of Business and the Department of Statistical Sciences graduate with the designation "Honors in Mathematical Business." For additional information, interested students should consult with both departments' program directors.