

# Statistics (MS)

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

The statistics specialization is designed to train students in the design and application of quantitative models to decision making in business, finance, pharmaceutical and other industries, and government. An MS program and an MBA program are offered through the Department of Statistics and Computer Information Systems. Both provide students with the concepts and skills that form the fundamental base of knowledge essential to statistics professionals in today's sophisticated business environment. The MS program is designed to provide a concentrated, in-depth study of the field for those who wish to be technical specialists in statistics. The program consists of 30 credits of mostly statistics, and some related courses. This distinguishes it from the Statistics [MBA program](#), which requires general business courses and a larger number of credits for graduation. The MS is offered as a full-time and as a part-time program.

## Preliminary Courses (9 credits)

Students with appropriate background will be able to reduce the number of credits in preliminary requirements. Grades in 8000-level courses are not calculated in the grade point average. Non-credit-bearing 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 8001	Calculus for Applications I	3 credits
STA 9707	Mathematical Tools for Business	3 credits
STA 9708	Applied Statistical Analysis for Business Decisions	3 credits

NOTE: MTH 8001 is no longer offered and is replaced by MTH 2610 Calculus I (4 hours, 4 credits). STA 9707 is no longer offered and is replaced by MTH 3010 Calculus II (4 hours, 4 credits). These are undergraduate courses to which graduate tuition applies.

## Courses in Specialization (30 credits)

Required (12 credits)

STA 9700	Applied Regression Analysis	3 credits
STA 9715	Applied Probability	3 credits
STA 9719	Foundations of Statistical Inference	3 credits
STA 9750	Software Tools for Data Analysis ( <a href="#">OPR 9750</a> )	3 credits

Choose four courses from: (12 credits)

STA 9701	Time Series: Forecasting and Statistical Modeling	3 credits
STA 9705	Multivariate Statistical Methods	3 credits
STA 9706	Analysis of Categorical and Ordinal Data	3 credits
STA 9710	Statistical Methods in Sampling and Auditing	3 credits
STA 9712	Advanced Linear Models	3 credits

STA 9713	Financial Statistics	3 credits
STA 9714	Experimental Design for Business	3 credits
STA 9772	Special Topics in Statistical Analysis	3 credits
STA 9783	Stochastic Processes for Business Applications ( OPR 9783 )	3 credits
STA 9850	Advanced Statistical Computing ( OPR 9850 )	3 credits

**Business Electives (6 credits)**

Choose two 9000-level courses from the graduate offerings of the Zicklin School of Business, subject to the written approval of the Statistics graduate advisor.