

# Statistics (MS)

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

The Master of Science in Statistics 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. The MS program provides students with the concepts and skills that form the fundamental base of knowledge essential to statistics professionals in today's sophisticated business environment including the technical background and capabilities required for the newer approaches to overall business analytics and data mining. 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. Students completing the MS degree successfully go on to careers as statisticians and sometimes continue to pursue a Ph.D. in statistics. The MS is a 31.5 credit program consisting largely of statistics courses and some related business courses which can be completed either part-time or full-time.

<b>English Language Proficiency:*</b>		
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.		
<b>Preliminary Courses (9 credits)</b>		
Students with appropriate academic background will be able to reduce the number of credits in preliminary requirements. Grades in undergraduate mathematics courses are not calculated in the grade point average.		
<a href="#">MTH 2610</a>	Calculus I	3 credits
<a href="#">MTH 3010</a>	Calculus II	3 credits
<a href="#">STA 9708***</a>	Managerial Statistics	3 credits
Note: MTH 2610 and MTH 3010 are undergraduate courses. Entering students are strongly advised to complete a minimum of six credits of calculus before starting the MS programs in Statistics, in order to waive these math requirements.		
<b>Courses in Specialization (31.5 credits)</b>		
<b>Required (13.5 credits)</b>		
<a href="#">BUS 9551</a>	Business Communication I*	1.5 credits
<a href="#">STA 9700</a>	Applied Regression Analysis	3 credits
<a href="#">STA 9715</a>	Applied Probability	3 credits
<a href="#">STA 9719</a>	Foundations of Statistical Inference	3 credits
<a href="#">STA 9750</a>	Software Tools for Data Analysis ( <a href="#">OPR 9750</a> )	3 credits
<b>Choose four courses from (12 credits):</b>		
<a href="#">STA 9690**</a>	Advanced Data Mining for Business Analytics	3 credits
<a href="#">STA 9701</a>	Time Series: Forecasting and Statistical Modeling	3 credits
<a href="#">STA 9705</a>	Multivariate Statistical Methods	3 credits
<a href="#">STA 9706</a>	Analysis of Categorical and Ordinal Data	3 credits

<a href="#">STA 9710</a>	Statistical Methods in Sampling and Auditing	3 credits
<a href="#">STA 9712</a>	Advanced Linear Models	3 credits
<a href="#">STA 9713</a>	Financial Statistics	3 credits
<a href="#">STA 9714</a>	Experimental Design for Business	3 credits
<a href="#">STA 9783</a>	Stochastic Processes for Business Applications ( <a href="#">OPR 9783</a> )	3 credits
<a href="#">STA 9791</a>	Special Topics in Statistics	1 credit
<a href="#">STA 9792</a>	Special Topics in Statistics	1.5 credits
<a href="#">STA 9793</a>	Special Topics in Statistics	2 credits
<a href="#">STA 9794</a> (formerly <a href="#">STA 9772</a> )	Special Topics in Statistics	3 credits
<a href="#">STA 9850</a>	Advanced Statistical Computing ( <a href="#">OPR 9850</a> )	3 credits
<b>Business Electives (6 credits)</b>		
Choose two 9000-level courses from the graduate offerings of the Zicklin School of Business, subject to the written approval of the Statistics graduate adviser. Student may take additional statistics courses as their business electives.		

\*Effective for all MS-Statistics 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.

\*\*Effective spring 2016; students admitted prior to fall 2015 will receive credit for STA/CIS 9660.

\*\*\* Formerly STA 9708 Applied Statistical Analysis for Business Decisions; new course title effective Spring 2017.