

MASTER OF SCIENCE IN STATISTICS

The School of Mathematics offers the degree of Master of Science in Statistics (MS STAT) in cooperation with the School of Industrial and Systems Engineering. It is available for applicants having the BS in mathematics; students with engineering backgrounds should enter the same program through the School of Industrial and Systems Engineering. Prerequisites include work in probability, statistics, linear algebra, calculus, and optimization. The program requires 30 credit hours of coursework. There is no thesis option.

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The School of Industrial and Systems Engineering (ISYE) offers eight master's degrees:

- Master of Science in Industrial Engineering (MS IE);
- Master of Science in Operations Research (MS OR);
- Master of Science in Supply Chain Engineering (MS SCE);
- Master of Science in Statistics (MS STAT);
- Master of Science in Health Systems (MS HS);
- Master of Science in Quantitative and Computational Finance (MS QCF);
- Master of Science in International Logistics (MS IL) that is part of the executive program; and
- Master of Science in Computational Science and Engineering (MS CSE).

Three of these programs are interdisciplinary:

- MS QCF (joint with School of Mathematics, College of Business),
- MS STAT (joint with School of Mathematics) and
- MS SCE (joint with College of Computing, School of Mathematics).

All proposed master's degree programs require thirty semester credit hours with the exception of MS IL and MS QCF (thirty-six credit hours) and MS HS (thirty-three credit hours). None of these MS programs contains a thesis option.

A student seeking a master's degree must have a bachelor's degree and typically one earned in engineering, science, mathematics, or some other field that provides an adequate background for the successful completion of one of ISyE's programs. Students having backgrounds from unaccredited degree programs or in programs that are found lacking in relative substance can expect to first take preliminary coursework in order to elevate their preparation to the level required. The prerequisite coursework for the various master's degrees includes strong performance in probability, statistics, linear algebra, and calculus.

Every MS curriculum is based on core classes offered from the School of ISyE, as well as electives offered by ISyE and other Georgia Tech schools in engineering and science. The MS SCE, MS QCF, and MS IL are

professional degree programs with separate curriculums from the other regular MS degrees.

MS Human-Integrated Systems

MS Statistics ISYE

MS Statistics Math

Program of Study

Code	Title	Credit Hours
Core Courses		
MATH 4261	Mathematical Statistics I	3
MATH 4262	Mathematical Statistics II	3
ISYE 6413	Design and Analysis of Experiments	3
ISYE 6414	Statistical Modeling and Regression Analysis	3
Statistics Electives (Select 5 courses)		15
MATH 4317	Analysis I	
MATH 6262	Advanced Statistical Inference I	
MATH 6263	Testing Statistical Hypotheses	
MATH 6266	Linear Statistical Models	
MATH 6267	Multivariate Statistical Analysis	
ISYE 6402	Time Series Analysis	
ISYE 6404	Nonparametric Data Analysis	
ISYE 6405	Statistical Methods for Manufacturing Design and Improvement	
ISYE 6412	Theoretical Statistics	
ISYE 6416	Computational Statistics	
ISYE 6421	Biostatistics	
ISYE 6761	Stochastic Processes I	
ISYE 6762	Stochastic Processes II	
ISYE/ MATH 6781	Reliability Theory	
ISYE/ MATH 6783	Statistical Techniques of Financial Data Analysis	
ISYE 6805	Reliability Engineering	
ISYE 7400	Advanced Design of Experiments	
ISYE 7401	Advanced Statistical Modeling	
ISYE 7405	Multivariate Data Analysis	
ISYE 7406	Data Mining and Statistical Learning	
ISYE 7441	Linear Statistical Models I	
Free Elective ¹		3
Total Credit Hours		30

¹ ISYE 6739 may not be used toward Free Elective