

The Master of Science Program in Applied Statistics



Department of Mathematical Sciences

College of Science and Liberal Arts

New Jersey Institute of Technology

WHY STUDY APPLIED STATISTICS?

In our information-led society data is a crucial commodity. Statisticians specialize in methods for collecting data by sampling methods and in statistical modeling and analysis, with a view to drawing meaningful conclusions from data. They also allow for the effects of uncertainty and “noise” that is often present in real data sets. Accordingly, trained statisticians are in substantial demand in diverse fields such as medicine and pharmaceuticals, environmental sciences, service industries, manufacturing, insurance, the financial industry, government, and market research.

WHY STUDY APPLIED STATISTICS AT NJIT?

The Master’s in Applied Statistics is a program of NJIT’s Department of Mathematical Sciences, which is nationally recognized for high-quality education and its applied research programs. Active participation in the MS program by more than 40 NJIT mathematical sciences faculty produces a stimulating learning environment. The department’s 20 active research projects have more than \$1 million in funding from public and private sources, including NSF, NIH, NASA, the US Department of Energy, the Air Force Office of Science and Research, and Novartis. Many of the program faculty have earned international reputations as a result of the breadth and depth of their accomplishments.

WHO SHOULD ENROLL?

The program is well suited for students with a baccalaureate degree who are planning to pursue a statistics-oriented career in the pharmaceutical or other industries and in commercial enterprises where basic statistical skills and knowledge of contemporary methods of data analysis and modeling are required. Additionally, for graduate students who intend to pursue a doctoral degree in Applied Probability and Statistics, the Masters program will equip them with the basic training in foundations needed for further graduate studies and research. It will also benefit practicing engineers and high technology workers who are seeking to advance their knowledge of statistical methods. The degree can be completed on a part-time basis, an option available to U.S. citizens and residents.

IS FINANCIAL AID AVAILABLE?

Financial support for full-time students in the MS program is extremely limited. Full-time domestic and international students may be eligible to receive the Provost Fellowship. For further information on financial aid, visit www.njit.edu/graduatestudent/finaid.php.

ADMISSION REQUIREMENTS

Applicants must have a baccalaureate degree from an accredited institution. Typically, students applying for admission to the MS in Applied Statistics will have an undergraduate education majoring in mathematics, statistics, physics, chemistry, or engineering. A cumulative GPA of at least 2.8 on a 4.0 scale is normally required. Applicants with a bachelor’s degree in other disciplines must satisfy an undergraduate mathematics credit requirement (12 credit hours, or corresponding U.S. equivalent, of undergraduate calculus and related mathematics courses with satisfactory grades). Applicants who do not meet these requirements and are accepted for admission will be subject to suitable bridge courses determined by the graduate advisor. GRE is required for (i) all applicants seeking financial support and (ii) all applicants whose most recent degree is from an insti-

tution outside the U.S. For such applicants, a currently valid GRE score must be submitted directly from ETS to the NJIT Graduate Admissions office. For all others, GRE scores are encouraged but not required.

For international applicants who have not been a student in a U.S. educational institution: *either* a TOEFL score (minimum eligible score 79), or an IELTS score (minimum eligible score 6.5, with no sub-score below 6.0) is also required.

CURRICULUM

The MS in Applied Statistics consists of seven core (required) courses and three elective courses, for a total of 30 credits. For degree requirements consult the graduate catalog catalog.njit.edu/graduate/.

CORE COURSES (21 CREDIT HOURS)

Math 611	Numerical Methods
<i>or</i>	
Math 630	Linear Algebra and its Application
Math 661	Applied Statistics
<i>or</i>	
Math 663	Introduction to Biostatistics
Math 644	Regression Analysis Methods
Math 662	Probability Distributions
Math 664	Methods for Statistical Consulting
Math 665	Statistical Inference
Math 699	Design and Analysis of Experiments

ELECTIVE COURSES (9 CREDIT HOURS)

Three elective courses in statistical methods and applications: consult the online graduate catalog and course schedules for courses available in any given semester. Elective courses are selected with approval of the Graduate Advisor. A project (or thesis) is optional, and is in addition to the minimum number of credits required for the degree.

FOR FURTHER INFORMATION, CONTACT:

Graduate Programs, department of Mathematical Sciences
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<http://math.njit.edu>

TO APPLY, CONTACT:

Office of Graduate Admissions
(973)596-3300, or apply on-line at
www.njit.edu/admissions/apply-online.php