

Ph.D. IN MATHEMATICAL SCIENCES

APPLIED STATISTICS

WHY STUDY FOR A DOCTORATE IN APPLIED STATISTICS?

Data has become a vital commodity in our information-driven society. Statisticians specialize in sampling, statistical modeling and analysis techniques to extract meaningful insights from complex data sets. They account for uncertainty and the inherent “noise” in real-world data. As a result, trained statisticians are in high demand across many sectors, including medicine and pharmaceuticals, environmental sciences, service industries, manufacturing, insurance, finance, government and market research.

**TOP 100
NATIONAL
MATHEMATICS**

- QS Rankings

**TOP 2%
IN RETURN ON
INVESTMENT**

- Payscale.com

**TOP 100
NATIONAL
UNIVERSITY**

- U.S. News & World
Report

**R1 RESEARCH
CARNEGIE
CLASSIFICATION®**

- The Princeton
Review

**JORDAN HU COLLEGE OF SCIENCE AND LIBERAL ARTS
NEW JERSEY INSTITUTE OF TECHNOLOGY**

OUR RESEARCH

MAJOR THEMES

- Inference
- Statistical Computing
- Asymptotic Methods
- Data Science

RESEARCH AREAS

- Machine Learning
- Survival Analysis and Clinical Trials
- Multiple Testing
- Spatial Analysis
- Bioinformatics
- Design for Computer Experiments



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math.njit.edu/phd-program

MATHEMATICAL SCIENCES APPLIED STATISTICS Ph.D. DEGREE AT NJIT

WHY STUDY APPLIED STATISTICS AT NJIT?

NJIT's doctoral program features approximately 40 active and internationally recognized faculty members known for their applied mathematics and statistics research. Students receive a solid mathematical foundation in statistical inference and probability while exploring advanced statistical modeling techniques. They engage in cutting-edge research supported by state-of-the-art computational infrastructure. The program immerses students in the latest innovations in statistical research, effectively preparing them for successful careers in academia and industry.

FUNDING

Teaching Assistantships are available that provide full tuition and twelve-month salary with benefits. Some students may be supported as Research Assistants on their advisors' external grant funding. Graduate workers are represented by UCAN. To view the current contract go to: ucanaft.org/contract/.

DEGREE REQUIREMENTS

Students entering with a bachelor's degree must complete 36 credits of coursework. Those students entering with a master's degree in mathematical sciences or equivalent must complete 12 credits of advanced 700-level coursework. Specific courses of study are planned in consultation with a faculty advisor and are subject to approval. Completion usually takes 4-5 years.

1ST SEMESTER		CREDITS
MATH 631	Linear Algebra	3
MATH 644	Regression Analysis Methods	3
MATH 645	Analysis I	3
MATH 662	Probability Distributions	3
Term Credits		12
2ND SEMESTER		
MATH 665	Statistical Inference	3
MATH 699	Design and Analysis of Experiments	3
MATH 745	Analysis II	3
MATH 768	Probability Theory	3
Term Credits		12
Total Credits		24

Electives include: Simulation in Stochastic Systems, Statistical Methods in Data Science, Stochastic Processes, Survival Analysis, Statistical Computing, Biostatistics, Statistical Learning

Learn More:

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