



# GRADUATE STUDIES Applied Statistics



## BUILD YOUR FUTURE WITH GRADUATE STUDY IN APPLIED STATISTICS

Villanova University has been training graduate students for careers in applied statistics for more than 50 years. In today's data-driven world, the need for talented statisticians has never been greater. To meet this need, the Department of Mathematics and Statistics offers a flexible Master of Science in Applied Statistics graduate program built on six required courses and a wide range of specialized electives.

### CHOOSE YOUR COURSE OF STUDY

#### Master of Science in Applied Statistics

- Complete your MS on a part-time or full-time basis
- Opportunity to take statistics-related elective courses from areas such as Computer Science and Mathematics
- Put yourself in position to pursue a career as a statistician in industry, government or academia
- Earn acceptance into top doctoral programs

#### Graduate Certificate in Applied Statistics

- Deepen your knowledge of statistics and receive formal recognition of statistical expertise
- Flexible program can adapt to your schedule and career goals
- Ideal for individuals working with data in industry, teachers in secondary schools or community colleges, and graduate students currently enrolled at Villanova University in fields that use statistics



## REQUIRED COURSES

- Statistical Methods
- Statistical Programming
- Statistical Theory I
- Statistical Theory II
- Regression Methods
- Linear Models

## SAMPLING OF ELECTIVE COURSES

- Multivariate Methods
- Categorical Data Analysis
- Design of Experiments
- Operations Research
- Mathematical Modeling
- Statistical Quality Control
- Time Series and Forecasting
- Survival Data Analysis
- Clinical Trials
- Nonparametric Statistics
- Sampling Methods
- Stochastic Processes
- Bayesian Statistics
- Data Mining
- Longitudinal Data Analysis
- Independent Study

**“Villanova’s knowledgeable and passionate professors, small class sizes and institutional resources are the reasons why I chose the Applied Statistics program. In my experience, the professors have gone out of their way to be available for questions and help with the material outside of the classroom. This makes a big difference, especially for those completing the program while working full time.”**

—Jerry O'Brien, Current Student

## FINANCIAL AID

- Need-based financial aid is available through Villanova’s Office of Financial Assistance
- A limited amount of department funding is available for full-time students who apply by March 1
- Villanova offers special tuition reductions for current teachers and school administrators: 40% for those employed by Catholic schools and 20% for those employed by non-Catholic schools

## WHY VILLANOVA?

- Villanova’s Augustinian Catholic intellectual tradition is the cornerstone of an academic community dedicated to service to others
- We share a commitment to the Augustinian ideals of Truth, Unity and Love
- Located on a beautiful green campus less than 20 minutes from Philadelphia
- Build lasting relationships with faculty mentors
- Feed your intellectual passion by collaborative learning with fellow graduate students

**FOR MORE INFORMATION OR TO APPLY:**

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