COLLEGE OF SCIENCE
ACADEMY OF DATA SCIENCE
VIRGINIA TECH

Master of Arts in Data Analysis and Applied Statistics

Northern Virginia Center

ADMISSIONS REQUIREMENTS

- Bachelor's degree from an accredited college or university
- Undergraduate cumulative grade point average of 3.00 or higher on a 4.0 base for the equivalent of the last two years of undergraduate study
- Two semesters of undergraduate statistics or business statistics or the equivalent professional experience performing statistical analysis in a workplace setting
  - Suitable online courses in statistics may also be acceptable
  - Experience in computer programming, either in a classroom or professional setting, is a plus
- GRE test scores (minimum 60th percentile - quantitative; 50th percentile - verbal)
  - Waivers are available to students who can demonstrate current and sufficient math and computing proficiencies
- Three letters of recommendation
- International applicants: English proficiency requirements can be found at https://graduateschool.vt.edu/admissions/how-to-apply/testing-requirements.html
- No application fee

ADMISSIONS DEADLINES

Applications are reviewed on a rolling basis, with the following deadlines:

U.S./Domestic:	August 1
International:	May 1

The Master of Arts in Data Analysis and Applied Statistics (DAAS) is a terminal master's degree designed for working professionals who desire advanced education in data analytics.

AT A GLANCE

- Part-time program consisting of 10 courses (30 credit hours), completed over a period of five to six consecutive semesters.
- With their cohort, students complete a fixed plan of study that features seven core courses (including a Capstone project course) and four specialized electives.
- Each semester, students take one synchronous and one asynchronous course.
- The first four courses in the program comprise a **Graduate Certificate in Applied Statistics** as an alternative for students who do not desire or require a master's degree credential.

SKILLS ACQUIRED WITH THE DAAS DEGREE

- Extract information and insights from data for evidence-based decision making, predictions, and classification
- Clean and shape data sets, and analyze them to answer specific questions
- Assess comparative advantage and limitations of various methods of analyzing data
- Communicate data analysis finding to interdisciplinary teams
- Develop analysis programs
- Take advantage of contemporary programming tools and techniques

https://data.science.vt.edu/programs/daas-nva.html

SUGGESTED COURSE SEQUENCE

SEMESTERS 1-3	
Semester 1 (Fall)	
Introduction to Statistical Programming (STAT 5054)*	Statistics in Research I (STAT 5615)**
Semester 2 (Spring)	
Effective Communication in Statistics (STAT 5024)*	Statistics in Research II (STAT 5616)**
Semester 3 (Summer)	
Data Analytics I (STAT 5525)*	Advanced Methods of Regression (STAT 5214G)**

SEMESTERS 4-5	
Semester 4 (Fall)	
Data Analytics II (STAT 5526)*	Statistical Computing for Data Analytics (STAT 5154)**
Semester 5 (Spring)	
Project and Report (STAT 5904)*	Experimental Design: Concepts and Applications (STAT 5204G)**

* Synchronous course
** Asynchronous course

Note: Students may choose to extend their time in the program for a sixth semester in order to complete their Capstone project.

CURRICULUM DESCRIPTION

Our program covers essential methods and tools in data analysis, applied statistics, computing, data visualization, and communication.

- **Applied statistics courses** (5615, 5616, 5214G) provide a solid foundation for developing, applying, and interpreting commonly used methods and techniques such as multiple regression and categorical data analysis.
- **Statistical computing courses** (5054 and 5154) cover the programming fundamentals necessary for organizing and preparing data for analysis and provide a workspace to apply the statistical methods covered in STAT 5615/16.
- **Data analytics courses** (5525/26) include supervised and unsupervised statistical and machine learning methods and algorithms for classification, clustering, support vector machines, principal components, and neural networks.
- STAT 5204G details **experimental design** for common situations such as A/B and multivariate testing and provides best practices for planning cost-effective and efficient data-driven projects.
- For the **Capstone Project course** (STAT 5904), we expect and encourage students to bring a project they want to work on from an outside organization and spend the semester developing a final analysis that can showcase the knowledge learned in the program.

For additional information about the admissions process, curriculum, or the DAAS program in general, please contact program manager **Cherie Nelson** at crnelson@vt.edu.

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