

# Statistical Science (M.S.)

Master of Science

<http://statistics.gmu.edu>

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## Program Overview

The Volgenau School of Engineering at George Mason University offers a Master of Science in Statistical Science through its Department of Statistics.

Statistical science is regarded as one of the oldest and most successful information technology subjects. It focuses on the conversion of raw data into information. The MS in Statistical Science Program provides students with the computational, data analytic, and theoretical tools required for success in a career as a statistician. Our graduates are employed in industry and government, and work in diverse applications such as biomedical research, census and surveys, and national security, among many others.

The Department of Statistics is the primary academic unit at Mason for research and instruction in statistical science. Its faculty perform cutting-edge research and are actively involved with federal agencies through grants and contracts. The department's proximity to federal agencies has largely shaped the programs' curricula. These agencies include the Bureau of Labor Statistics, Environmental Protection Agency, Food and Drug Administration, National Institutes of Health, National Science Foundation, and U.S. Census Bureau.

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## Program Requirements

All students must complete 30 graduate credits, including 15 credits of core courses:

- Applied Probability
- Applied Statistics
- Statistical Inference
- Statistical Modeling
- Statistical Collaboration and Consulting

Students build on these core requirements by choosing 12 credits of methodology courses and 6 credits of electives.

Students select either the professional or research option, depending on career ambitions. The professional option provides MS degree qualifications to those seeking an expanded knowledge base in modern statistical theory and practice but do not wish to pursue a research career. The research option is for students planning to continue with a PhD degree, or begin/continue careers in statistical methodology research. The professional option requires completion of 15 additional credits of course work beyond the core courses. The research option requires completion of 9 additional credits of course work beyond the core courses and 6 credits of independent research leading to a master's thesis.

Refer to the department's website for more information on program course offerings and details on program requirements.

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### Related Programs

- Statistical Science, PhD
  - Mathematics and Statistical Science Dual-Degree, MS
  - Biostatistics, MS
  - Operations Research and Statistical Science Dual-Degree, MS
  - Data Analytics Engineering (Concentration in Statistics for Analysis), MS
  - Federal Statistics, Graduate Certificate
  - Data Analytics, Graduate Certificate
  - Actuarial Sciences, Graduate Certificate (offered by the Math Dept)
  - Applied Statistics, Graduate Certificate
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### Admission Requirements

In addition to meeting general university admissions requirements, applicants must hold a bachelor's degree from an accredited institution (minimum 3.00 GPA) in a major that includes course work in multivariable calculus, matrix or linear algebra, statistics, and calculus-based probability theory and statistical software.

Required application materials include:

- Online application and non-refundable fee
- Transcripts showing all post-secondary study
- Professional and Educational Goals Statement
- Two letters of recommendation from professors or senior officials at place of employment
- Resume

Additional application materials, including English proficiency examination scores (e.g., TOEFL, IELTS), are required if the applicant holds a degree from an international institution and/or requires an F-1 or J-1 visa. Visit <http://admissions.gmu.edu/grad/> for details.

Special admission programs are available for Volgenau School students and alumni.

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Visit our website for details: <http://statistics.gmu.edu>

Apply online: <http://admissions.gmu.edu/grad/applynow/>