The MS program in Statistical Science at George Mason University was launched in 1992, with the goal of pursuing sound and reproducible research in statistics and data science; training and educating the next generation of statisticians and data scientists in the changing landscape of computing and AI; promoting the practice of statistical principles and evidence-based research; and serving the society through statistical innovations and interdisciplinary collaborations.

M.S., Statistical Science (MS-STAT)
In this 30-credit graduate program students may complete a thesis option, but it is not required. It provides sufficient background for professional employment in industry or government, as well as for being qualified to continue in more advanced degree programs.

In response to the rapidly evolving technological landscape, the department of statistics has proactively updated the MS in Statistical Science program to integrate the latest developments in statistics and data science. Two new concentrations have been successfully proposed and developed under the MS Statistical Science program:

The Statistical Data Science Concentration (SDSC), launched in Fall 2023.
The Modern Statistics Concentration (MSC), launched in Fall 2024.
It was recently reformatted to require students to select one of two concentrations:

Modern Statistics (MSC): Provides students with a rigorous curriculum encompassing theoretical underpinnings, sophisticated statistical modeling methodologies, and state-of-the-art techniques essential for addressing modern statistical challenges and advancing statistical practice in diverse fields. The requirements for this concentration are the same as the requirements for the M.S. before the introduction of concentrations.

Statistical Data Science (SDSC): Prepares students for making contributions in statistical data science for positions in industry and government. This is less mathematically intensive than the Modern Statistics concentration.

M.S., Biostatistics (MS-BSTA)
This 30-credit graduate program, established in 2012, focuses on more specialized courses in public health and biological applications. Students are required to take two courses from other departments as part of the degree.

Dual-Degree M.S., Mathematics and Statistical Science
This program allows students to earn an MS degree in Mathematics and an MS degree in Statistical Science by completing 48 credits of course work in both areas instead of the 60 that would be required if the degrees were sought independently.

Dual-Degree M.S., Operations Research and Statistical Science
This program allows students to earn an MS degree in Operations Research and an MS degree in Statistical Science by completing 48 credits of course work in both areas instead of the 60 that would be required

MS Statistical Science and MS Biostatistics: The programs typically need 2 years to complete if taking 3 courses each semester. Post 2018, we had more students graduate within one year, which might be attributed to Bachelor's/Accelerated Master's (BAM) students or other inspired individuals.

of knowledge of statistical techniques, experience with using these techniques in applied situations, and an understanding of the theoretical foundations behind them. Students receive excellent training for

New Statistical Data Science Concentration: Students in this concentration will especially learn statistical methods and ideas relevant to modern data science and will be in high demand for data science and data analytics positions because their exposure to the statistical methods and understanding of the statistical ideas will allow them to select the most appropriate method for a specific problem and enable them to develop their own statistically sound method when needed.

New Modern Statistics Concentration: This concentration will serve as a vital curriculum addition, catering to the growing needs of industries, research institutions, and government agencies for professionals equipped with advanced statistical skills. While our existing Statistical Data Science Concentration focuses on data manipulation, visualization, statistical learning, and computing, the proposed Modern Statistics Concentration will complement this by providing a deeper understanding of theoretical foundations, advanced statistical modeling techniques, and cutting-edge methodologies essential for modern statistical practice.