Statistics is the science of data. Statistical reasoning, methods, design and data analysis are crucial for all disciplines in which data are present. As collection of data grows in all sectors of employment, the Department of Statistics prepares students to meet the challenges of data science, including design of experiments, data collection, curation, analysis, and interpretation.

Department Offerings

Courses
The department offers a variety of introductory, intermediate and advanced courses, including specialized statistical methodology and applications. The focus of the department’s offerings is applied, computational, and theoretical, with special emphasis on statistical, biostatistical, graphical and computational statistics, as well as federal statistics, data analytics, and statistics interfaced with modern sciences.

Undergraduate Programs
The Department of Statistics offers an undergraduate Statistics, BS (http://catalog.gmu.edu/colleges-schools/engineering/statistics/statistics-bs/) with four concentrations, as well as a Data Analysis Minor (http://catalog.gmu.edu/colleges-schools/engineering/statistics/data-analysis-minor/) and a Statistics Minor (http://catalog.gmu.edu/colleges-schools/engineering/statistics/statistics-minor/), and BS/MS accelerated options. A variety of advanced undergraduate courses are also available for inclusion in other degree programs.

Graduate Programs
The department also administers three master's degree programs: Statistical Science, MS (http://catalog.gmu.edu/colleges-schools/engineering/statistics/statistical-science-ms/), Biostatistics, MS (http://catalog.gmu.edu/colleges-schools/engineering/statistics/biostatistics-ms/), and Data Analytics Engineering, MS (http://catalog.gmu.edu/colleges-schools/engineering/data-analytics-engineering-ms/). The Data (http://catalog.gmu.edu/colleges-schools/engineering/data-analytics-engineering-ms/) Analytics Engineering, MS (http://catalog.gmu.edu/colleges-schools/engineering/data-analytics-engineering-ms/) Analytics Engineering, MS (http://catalog.gmu.edu/colleges-schools/engineering/data-analytics-engineering-ms/) is a multidisciplinary program with courses and concentrations offered by many participating departments in the Volgenau School of Engineering.

Two dual master's degree programs, the Mathematics and Statistical (http://catalog.gmu.edu/colleges-schools/engineering/statistics/statistical-science-ms/#dualdegreeoptionstext) Science Dual-Degree, MS (http://catalog.gmu.edu/colleges-schools/engineering/statistics/statistical-science-ms/#dualdegreeoptionstext) and the Operations Research and Statistical Science Dual-Degree, MS (http://catalog.gmu.edu/colleges-schools/engineering/statistics/statistical-science-ms/#dualdegreeoptionstext) are offered in conjunction with the Mathematical Sciences (http://catalog.gmu.edu/colleges-schools/science/mathematical-sciences/#text) and Systems Engineering and Operations Research (http://catalog.gmu.edu/colleges-schools/engineering/systems-operations-research/) departments, respectively.

Finally, the Statistical Science, PhD (http://catalog.gmu.edu/colleges-schools/engineering/statistics/statistical-science-phd/) represents the highest academic attainment for a statistician and, as such, requires in-depth training to gain skills and knowledge of modern statistical theory, methodology, and practice.

Faculty

Department Faculty

Professors
Davis, Rosenberger, Sun (Chair), Vidyashankar

Associate Professors
Holmes, Izmirli, Johnson, Strazzieri, Sutton

Assistant Professors
Bagchi, Bruce, Fadahunsi, Hunter, Keppinger, Lee, Qiao, Ramezani, Slawski

Emeritus Faculty
Bolstein, Carr, Miller

Programs

• Applied Statistics Graduate Certificate
• Biostatistics, MS
• Data Analysis Minor
• Statistical Science, MS
• Statistical Science, PhD
• Statistics Minor
• Statistics, BS