

MASTER OF SCIENCE IN THE FIELD OF DATA SCIENCE (STEM)

Data science is an emerging field that aims to draw actionable conclusions from data. It uses techniques and theories from the broader areas of statistics, computer science, and mathematics. Its applications are in many fields, including business, engineering, natural sciences, social sciences, humanities, and healthcare.

The explosion of data in today's world is rapidly shaping the landscape of our lives. This has led to an urgent need to process massive amount of information and obtain meaningful insights. Data scientists are trained to meet such challenges. Through a structured curriculum that provides foundational knowledge as well as application skills, students in GW's MS in data science program learn how to confront the most complex problems faced by both government and private industry using data-driven decisions.

The program provides a deep foundation in statistical analysis and programming. It also offers knowledge of the application domain, in addition to project management skills. Program graduates apply data science techniques to the solution of real world problems, communicate findings, and effectively present results using data visualization tools.

Developed through a collaborative effort between the Departments of Statistics, Mathematics, Physics, Economics, Geography and Political Science, the MS in data science gives students cutting-edge tools for analyzing big data and teaches them how to extract the insights that are changing the way we live, work, and communicate.

This is a STEM designated program.

Visit the program website (<https://datasci.columbian.gwu.edu/>) for additional information.

ADMISSIONS

Visit the Columbian College of Arts and Sciences website for application requirements (<https://columbian.gwu.edu/application-requirements/>).

Supporting documents not submitted online should be mailed to:

Columbian College of Arts and Sciences, Office of Graduate Studies
The George Washington University
801 22nd Street NW, Phillips Hall 107
Washington DC 20052

For additional information about the admissions process visit the Columbian College of Arts and Sciences Frequently Asked Questions (<https://columbian.gwu.edu/graduate-admissions-faq/>) page.

Contact for questions:

askccas@gwu.edu
202-994-6210 (phone)

Hours: 9:00 am to 5:00 pm, Monday through Friday

REQUIREMENTS

The following requirements must be fulfilled:

The general requirements stated under Columbian College of Arts and Sciences, Graduate Programs (<https://bulletin.gwu.edu/arts-sciences/#regulationsgraduatetext>).

30 credits, including 18 credits in required courses and 12 credits in elective courses.

Code	Title	Credits
Required		
DATS 6101	Introduction to Data Science	
DATS 6102	Data Warehousing	
DATS 6103	Introduction to Data Mining	
DATS 6501	Data Science Capstone	
DATS 6202	Machine Learning I: Algorithm Analysis	
DATS 6401	Visualization of Complex Data	
Electives		

12 credits in elective courses in DATS numbered 6000 or above.

COMBINED PROGRAM

Combined program

- Dual Master of Science in the field of data science and Graduate Certificate in geographic information systems (<https://bulletin.gwu.edu/arts-sciences/data-science/ms-cert-gis/>)