MASTER OF SCIENCE IN THE FIELD OF DATA SCIENCE

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

Admission deadlines:

- Fall - April 1 (February 1 for assistantship/fellowship consideration)
- Spring - October 1

Applications received after the above dates will be considered on a case-by-case basis.

Standardized Test Scores:

- GRE is not required.

- The Test of English as a Foreign Language (TOEFL), the academic International English Language Testing System (IELTS), or the PTE Academic is required of all applicants except those who hold a bachelor’s, master's, or doctoral degree from a college or university in the United States or from an institution located in a country in which English is the official language, provided English was the language of instruction.

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

Supporting documents not submitted online should be mailed to:

Columbian College of Arts and Sciences - Graduate Admissions Office
The George Washington University
801 22nd Street NW, Phillips Hall 215
Washington DC 20052
Contact:

askccas@gwu.edu
202-994-6210 (phone)
202-994-6213 (fax)

Hours: 8:30 am to 5:30 pm, Monday through Friday

REQUIREMENTS

The following requirements must be fulfilled:

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

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

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Required</td>
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<tr>
<td>DATS 6101</td>
<td>Introduction to Data Science</td>
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<td>DATS 6102</td>
<td>Data Warehousing</td>
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<td>DATS 6103</td>
<td>Introduction to Data Mining</td>
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<td>DATS 6501</td>
<td>Data Science Capstone</td>
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<td>DATS 6202</td>
<td>Machine Learning I: Algorithm Analysis</td>
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<tr>
<td>DATS 6401</td>
<td>Visualization of Complex Data</td>
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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 (http://bulletin.gwu.edu/arts-sciences/data-science/ms-cert-gis/)