DATA ANALYTICS AND VISUALIZATION, MS

The Master of Science in Data Analytics and Visualization (DAV) (STEM) program addresses the growing need, both nationally and locally, for researchers, analysts, mapmakers, designers, usability experts, and other data professionals. Drawing on the School of Information's strengths in information science and human-computer interaction, the program prepares students for work across the full life cycle of data, from data acquisition, manipulation, and storage to statistical analysis and interpretation, and dissemination of data artifacts through visual and narrative means.

The DAV program creates well-rounded data professionals who have strong statistical and technology skills combined with strengths in research, communication, and design, allowing them to ask sophisticated research questions around data, convey information effectively in visual and written communications, and design intuitive, meaningful, and engaging experiences of data.

Course and Credit Requirements

The DAV program consists of 36 credits (12 three-credit classes): 6 required courses and 6 electives which must be completed with a B average or higher. The program is designed to be completed in two years (3 courses per semester) or three years (2 courses per semester). Summer courses may reduce this time. Please note that international students must be enrolled full-time (3 courses, 9 credits per semester). Courses are held at 11:30 AM, 3 PM, and 6:30 PM.

Code	Title	Credits
Required Courses		
Foundation		
INFO-601	Foundations of Information	3
DAV Core		
INFO-640	Data Analysis	3
INFO-658	Information Visualization	3
INFO-664	Programming For Cultural Heritage	3
Electives		
Select at least one Data Analysis Elective		3
Select at least one Data Visualization Elective		3
Select at least one Data UX Elective		3
Select three INFO Electives		9
Select two Institute-Wide or INFO Electives		6
Total Credits		**36**

Code	Title	Credits
Data Analysis Electives (at least 1 course, 3 credits)		
INFO-612	Advanced GIS	3
INFO-615	Spatial Statistics for GIS	3
INFO-628	Data Librarianship and Management	3
INFO-630	Human-Centered Research Design & Methods	3
INFO-639	Database Design and Development	3
INFO-656	Machine Learning	3
INFO-657	Digital Humanities	3
INFO-685	Digital Analytics: Web, Mobile and Social Media	3

Code	Title	Credits
Data Visualization Electives (at least 1 course, 3 credits)		
INFO-609	Introduction to Spatial Thinking & GIS	3
INFO-614	Programming Interactive Web Maps	3
INFO-616	Programming Interactive Visualizations	3
INFO-637	Programming User Interfaces	3
INFO-638	Web Development	3
INFO-641	Visual Communication & Information Design	3
INFO-659	Advanced Projects in Digital Humanities	3
INFO-696	Advanced Projects in Visualization	3

Code	Title	Credits
Data UX Electives (at least 1 course, 3 credits)		
INFO-606	Digital Accessibility	3
INFO-608	Human Information Interaction	3
INFO-636	Conversational User Experience Design	3
INFO-643	Information Architecture & Interaction Design	3
INFO-644	Usability Theory & Practice	3
INFO-650	Speculative Design	3
INFO-651	Emotional Design	3
INFO-671	Sustainable Interaction Design	3

Advanced Certificates

The degree can be completed while earning any of the following advanced certificates:

- Digital Humanities, Advanced Certificate (https://catalog.pratt.edu/graduate/advanced-certificates-minors/digital-humanities-advanced-certificate/)
- Spatial Analysis and Design, Advanced Certificate (https://catalog.pratt.edu/graduate/advanced-certificates-minors/spatial-analysis-design-advanced-certificate/)
- User Experience, Advanced Certificate (https://catalog.pratt.edu/graduate/advanced-certificates-minors/user-experience-advanced-certificate/)

If you intend to complete an advanced certificate, once enrolled in the program, please submit the Certificate Declaration form (https://www.pratt.edu/resources/school-of-information-certificate-declarations/) at your earliest convenience.   Advanced certificates available for graduate students that can be completed beyond the 36-credit degree can be found here (https://catalog.pratt.edu/graduate/advanced-certificates-minors/).

Scholarships

Two-Year Renewable Scholarships for New Students

These scholarships are awarded at the time of admissions and are renewable for the second year for students who maintain a GPA of 3.0 or higher. Students must be full-time (minimum of 9 credits per semester).

Fellowships

The School of Information offers a number of fellowships in partnership with NYC cultural institutions. Each fellowship requires the completion of a nine-month internship (120 hours per semester) and is accompanied by a scholarship in the amount of $7,730. For a complete listing of fellowship opportunities, please visit the School of Information website and go to Experiential Learning Opportunities, Fellowships (https://

www.pratt.edu/information/experiential-learning-opportunities/fellowships/).

Admission Requirements

Applicants must hold a baccalaureate degree from an accredited university. Applicants must have a superior scholastic record or otherwise give evidence of ability to perform work at the graduate level. Applicants are expected to offer evidence of maturity and leadership potential for the profession.

All applicants must apply using the online application, upload the following top three items, and submit requests for recommendations online.

- Official transcripts of all previous postsecondary education
- A statement of purpose describing interest in the program and personal goals
- A current résumé/CV
- Request two letters of recommendation online from academic or professional sources

Note: Portfolios are not required

A TOEFL of 82 (internet and home test), TOEFL ITP Plus for China of 553, IELTS or IELTS Indicator of 6.5 or a PTE of 53 is required for international students. Students who are not international but whose first language is not English must submit the GRE, TOEFL, IELTS or PTE. Applicants may apply for nonmatriculated status if desired and take up to 6 credits.

Special Note for International Students: The DAV program is designated as a STEM program by the Department of Homeland Security (DHS) and thus qualifies for the STEM optional practical training (OPT) extension for F-1 students.

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Course	Title	Credits
Semester 1		
INFO-601	Foundations of Information	3
INFO-610	Introduction to Statistics	3
INFO-654	Information Technologies	3
	Credits	**9**
Semester 2		
INFO-640	Data Analysis	3
INFO-658	Information Visualization	3
Elective		3
	Credits	**9**
Semester 3		
INFO-664	Programming For Cultural Heritage (or Elective)	3
Elective		3
Elective		3
	Credits	**9**
Semester 4		
Elective		3
Elective		3
Elective		3
	Credits	**9**
	Total Credits	**36**

Please note that some required courses have prerequisites, including INFO 654 Information Technologies for INFO 658 and INFO 664, and INFO 610 Introduction to Statistics for INFO 640. Please note that the courses can be waived if the student has taken relevant courses within the last five years or have recent relevant work experience. Please see the Information Technology webpage (https://www.pratt.edu/resources/school-of-information-information-technology/) and/or the Introduction to Statistics Waiver Request Form (https://docs.google.com/forms/d/1NoIf6REXDX79xumhN403Q4X3kXMj-z6Q_A4mSXBZrQY/edit/?ts=66394727) for additional details. INFO 654 and INFO 610 can be used to satisfy the Open Electives.

Throughout the DAV program, students will create a digital portfolio to highlight the work they have completed and demonstrate they have met the program's five student learning outcomes:

- Research – Students can develop complex questions surrounding data and select and apply appropriate methods to answer them.
- Communication – Students can formulate reasonable interpretations of data and share them effectively through visual and narrative means.
- Technology – Students can choose and employ appropriate tools for data collection, storage, manipulation, analysis, visualization, dissemination, and preservation, as relevant to goals, tasks, and users.
- User-Centered Design – Students can identify relevant users and develop intuitive, meaningful, and engaging experiences for them.
- Critical Perspectives—Students understand issues of power and data, and ask critical questions around access, interpretation, representation, and impacts on people and the environment.