

DATA ANALYTICS AND POLICY, CERTIFICATE

Certificate in Data Analytics and Policy (<https://advanced.jhu.edu/academics/certificates/data-analytics-and-policy/>)

The Certificate in Data Analytics and Policy prepares students to use analytics to tackle policy challenges in the public and private sectors. Students gain expertise in cutting-edge analytical methods relied upon by government agencies, research institutes, private companies, and nonprofit organizations. The program emphasizes the application of analytics to substantive issues to develop students into data-driven leaders.

The schedule for completing this five-course certificate program is flexible. Many students work full time while attending the program on a part-time basis. Courses are offered primarily online, although some courses may be offered onsite in Washington, D.C.

In addition to two required core courses on foundational statistical methods, students select three electives that cover a wide range of analytical methods, including machine learning, predictive analysis, text analysis, database management systems, computational modeling, civic technology, economic analysis, survey methodology, risk analysis, and data privacy.

Admissions Criteria for all Advanced Academic Programs (<https://e-catalogue.jhu.edu/arts-sciences/advanced-academic-programs/enrollment-services/admission/>)

PROGRAM-SPECIFIC REQUIREMENTS

In addition to the materials and credentials required for all programs, the Certificate in Data Analytics and Policy requires:

- **Current resume or academic CV.**
- **Statement of purpose:** An approximately 500-word statement that explains your reasons for seeking admission and describes how earning the certificate will advance your career in data analytics and/or public policy. Your statement should describe your ability or potential to perform quantitative analyses.
- **Two letters of recommendation:** Please provide contact information for two recommenders. Recommenders should be previous academic instructors or professional colleagues who can evaluate your academic and professional accomplishments and suitability for graduate study. When possible, recommenders should provide their letters on institutional or business letterhead. It is preferred that students who have earned their bachelor's degree within the last three years provide at least one reference from a faculty member from their undergraduate institution.

Program Requirements

- Two required core courses
- Three elective courses

Code	Title	Credits
Core Courses - Required		
AS.470.681	Probability and Statistics	3
AS.470.709	Quantitative Methods	3
Electives		
<i>Select three from the following list:</i>		
AS.430.600	Web GIS	4
AS.430.601	Geographic Information Systems (GIS)	4
AS.430.604	Spatial Analytics	4
AS.430.606	Programming in GIS	4
AS.470.605	Global Political Economy	3
AS.470.608	Public Policy Evaluation & the Policy Process	3
AS.470.624	Healthcare Analytics and Policy	3
AS.470.627	Financial Management & Analysis in the Public Sector	3
AS.470.631	Economics for Public Decision-Making	3
AS.470.636	Cognitive and Behavioral Foundations for Artificial Intelligence	3
AS.470.643	Text as Data	3
AS.470.645	The Budgetary Process	3
AS.470.662	Expertise and Evidence in Policymaking	3
AS.470.667	Machine Learning Methods and Applications	3
AS.470.669	Math for Data Scientists	3
AS.470.671	Risk Management Analytics	3
AS.470.673	Data Visualization	3
AS.470.694	Big Data Management Systems	3
AS.470.699	Applied Performance Analytics	3
AS.470.700	Cloud Computing in the Public Sector	3
AS.470.703	Urban Data Analytics	3
AS.470.708	Unleashing Open Data with Python	3
AS.470.731	Privacy in a Data-driven Society	3
AS.470.733	Origins and Influence of Public Opinion on American Democracy and Elections	3
AS.470.743	Data Mining and Predictive Analytics	3
AS.470.745	Terrorist Financing Analysis and Counterterrorist Finance Techniques	3
AS.470.758	Data-Driven Campaigns and Elections	3
AS.470.763	Database Management Systems	3
AS.470.764	Survey Methodology	3
AS.470.768	Programming and Data Management	3
AS.470.769	Data Science for Public Policy	3
AS.470.779	Computational Modeling for Policy and Security Analysis	3
AS.470.798	Financial Management and Analysis in Nonprofits	3
AS.470.835	DC Lab: Politics, Policy, and Analytics	3
AS.473.602	Intelligence Analysis	3
AS.472.611	Analyzing Social Media and Geospatial Information	3
AS.472.612	Geospatial Analysis: Communicating with Multiple Audiences	3