DATA SCIENCE FOR PUBLIC POLICY (MS)

Brooks School of Public Policy

CIP: 30.7001 | **HEGIS:** 2199 | **NYSED:** 44284

Program Description

Recent decades have seen exponential growth in the collection and amassing of data. The explosion of data comes from an ever-growing variety of sources: administrative and institutional operations, internet, video, audio, sensor, and data from businesses. These new data provide new opportunities for making better informed decisions and provide better information to citizens, yet relatively few policymakers and public servants have the appropriate training to do so.

Professional degrees that allow students to learn about data science and gain computing and leadership skills are in high demand, but most of the training in data science is solely focused on technical computing skills and/or on the private sector. Moreover, regulation and policy have been unable to keep up with the fast-paced proliferation of data science tools, like artificial intelligence, and how they are used. Important issues about privacy, ethics, access, and accuracy have yet to be settled. Capably managing these new frontiers of technology will require a workforce that both understands the technical tools and underlying social science and policy analysis frameworks for their use.

Students trained in the Brooks School Master of Science in Data Science for Public Policy (DSPP) program will be well-equipped for careers at the local, state, national, and global levels across a range of sectors and industries, both in occupations (like data scientist) focused on utilizing data science tools and in those (like policy analyst) focused on managing or responding to the use of these tools.

Admissions Requirements

Each application is reviewed holistically and in the context of the overall applicant pool for that admission cycle. To be considered for admission, applicants must submit a complete application package as outlined below.

- Transcripts from all colleges or universities attended
- Two letters of recommendation
- Resume
- Statement of purpose
- Online video interview
- TOEFL or IELTS scores, if applicable
- Visit the Graduate School Admissions site (https://gradschool.cornell.edu/admissions/prepare/english-language-proficiency-requirement/) for details on the English language proficiency requirement, including standing exemptions.

Policies and Procedures

For details about Brooks School academic policies see the Brooks School policies page.

Please review the university catalog policies regarding academic integrity and final exams.

Petitions

Course substitutions may be permitted based on prior mastery of a subject or to request a relevant course not listed within the catalog year's curriculum requirements. These petitions must be approved by the Data Science for Public Policy Program Director.

Data Science for Public Policy students must be in-residence for all semesters of the program. They must also attend classes according to the modality offered by the course and cannot request an alternative form of attendance/participation.

Students who face an extenuating circumstance may petition the Data Science for Public Policy Director for an exception to a Data Science for Public Policy academic policy.

Good Academic Standing Requirements

The minimum academic standards are as follows:

- A student must maintain a semester and cumulative grade point average of 3.0.
- Students must receive a grade of C or better in all degree requirements.
- A student cannot carry more than two (2) incomplete grades simultaneously.
- Students must complete at least 12 credits each semester unless they have received an approved petition to take fewer than 12 credits (e.g. for SDS accommodation)
- Students must be in-residence unless they are participating in an approved off-campus activity, with written approval from the Program Director.
- A student must be making "satisfactory progress" toward a Brooks School master's degree.

Review Process

At the end of each semester, the Brooks School committee on academic status (CAS) reviews each Bachelor of Science and Professional Master student's academic record to ensure that the minimum academic standards are met. The committee takes appropriate action for students whose academic achievement is considered unsatisfactory as defined by the criteria above. To support every student's success, the committee may take any of the following actions:

- Withdraw the student permanently from the Brooks School and Cornell University.
- Require the student to take a leave of absence for one or more semesters.
- Issue a warning to the student at one of the following levels (these imply that if the student does not show considerable improvement during the semester, the committee may withdraw the student):
  - Severe warning with danger of being withdrawn
  - Severe warning
  - Warning
- Add the student's name to a review list; students with this status are monitored by the committee throughout the semester.
- Return the student to good standing.

Any of the above actions may be accompanied by a semester credit limit or a requirement for the student to meet with an academic advisor by a date set by the committee.

Students placed on a required leave must appeal to CAS to return. This appeal occurs at the end of the required leave period. Students who have been withdrawn may appeal the decision before the committee during the pre-semester appeals meeting.

All students with an academic warning status automatically will be reviewed for specific criteria at the end of the subsequent semester. Students put on warning, severe warning, or severe warning with danger of being withdrawn status will be informed of conditions that they are expected to fulfill to return to good standing.

Students who have been previously placed on a required leave and wish to return to the Brooks School must submit a plan of study to the committee before being rejoined. The student should contact the Registrar (BrooksRegistrar@cornell.edu) in the Brooks Office of Admissions, Student Services, and Career Management to discuss the process and due dates.

Students who have been withdrawn from the Brooks School by CAS may request that they be readmitted. Such students have three years from the date they were withdrawn to make this appeal with assistance from an advisor in the Brooks Office of Admissions, Student Services, and Career Management. After three years, a former student must apply for readmission through the Brooks School admissions process. A student applying for readmission should discuss their situation with an advisor in the Brooks Office of Admissions, Student Services and Career Management The student also should talk with others who may be able to help—faculty mentors, instructors, or a member of the university medical staff. Any information given to the committee is held in the strictest confidence.

Program Information

- Instruction Mode: In Person
- Location: Ithaca, NY
- Minimum Credits for Degree: 40

Program Requirements

All courses must be completed for a grade of C or better. If the course is only offered with S/U grading, a grade of SX must be received.

Code	Title	Hours
Core Courses		
PUBPOL 5575	Statistics for Public Policy	3
PUBPOL 5610	Data Analytics and Regression Analysis	3
PUBPOL 5210	Intermediate Microeconomics for Public Affairs	3
PUBPOL 5605	Political Analysis and the Policy Process	3
PUBPOL 5725	Data Ethics for Public Policy	3
PUBPOL 5799	Data Management and Programming	3
PUBPOL 5390	Foundations of Machine Learning for Public Policy	3
PUBPOL 5391	Data Science Modeling II	3
PUBPOL 5840	Data Visualization for Public Policy	3
PUBPOL 5665	Managing and Leading Organizations	3
PUBPOL 5805	Communication for Data Science and Public Policy	3
PUBPOL 5880	Brooks Engaged Learning Capstone	4
Elective Courses [1]		**3**
Total Hours		**40**

[1]   Elective coursework must be relevant to the student's unique data science for public policy academic goals, and must be approved by the program director.

University Graduation Requirements Requirements for All Students

In order to receive a Cornell degree, a student must satisfy academic and non-academic requirements.

Academic Requirements

A student's college determines degree requirements such as residency, number of credits, distribution of credits, and grade averages. It is the student's responsibility to be aware of the specific major, degree, distribution, college, and graduation requirements for completing their chosen program of study. See the individual requirements listed by each college or school or contact the college registrar's office (https://registrar.cornell.edu/service-resources/college-registrar-directory/) for more information.

Non-academic Requirements

Conduct Matters. Students must satisfy any outstanding sanctions, penalties or remedies imposed or agreed to under the Student Code of Conduct (Code) or Policy 6.4. Where a formal complaint under the Code or Policy 6.4 is pending, the University will withhold awarding a degree otherwise earned until the adjudication process set forth in those procedures is complete, including the satisfaction of any sanctions, penalties or remedies imposed.

Financial Obligations. Outstanding financial obligations will not impact the awarding of a degree otherwise earned or a student's ability to access their official transcript. However, the University may withhold issuing a diploma until any outstanding financial obligations owing to the University are satisfied.

Learning Outcomes

- Interpret and explain the theory and use of tools applicable to the development and evaluation of policy.
- Develop the skills required for effective delivery of evidence used for policy formation and evaluation, including written, spoken, and visual presentation.
- Work with others toward the goal of serving the public interest.
- Foster an inclusive learning environment in which diverse approaches and points of view can help guide government actions.
- Evaluate and scrutinize data to inform policy evaluation.