NYU’s Center for Urban Science and Progress (CUSP) is an interdisciplinary research center dedicated to the application of science, technology, engineering, and mathematics to serve urban communities across the globe. Our students innovate data- and technology- driven solutions to improve city services, create smart infrastructures, and tackle issues such as crime and environmental pollution.

The new Online Advanced Certificate can be completed from anywhere in the world and can be built around your busy schedule. Our expert faculty members will serve as your mentor in using data for social good – helping cities around the world become more productive, livable, equitable, and resilient. Using synchronous online coursework with support videos and materials, you will explore how data analytics can help solve challenges faced by growing cities worldwide.

The Online Advanced Certificate is designed for:

- Anyone with previous studies or professional experience in Urban Informatics.
- Public officials or city employees without a STEM background with a desire to learn how to use data to improve urban policy making or city operations.
- Working professionals interested in the intersection of data and cities.
- Researchers or consultants currently working to solve complex urban problems.
- International students or professionals interested in using data and technology for social good in cities around the world.

**CERTIFICATE HIGHLIGHTS**

- **12 Credits (4 Classes):** Choose from 6 available classes to customize your plan of study and build competencies in both technical and urban policy domains.
- **Built for Working Professionals:** Apply new skills to your current role or prepare for a career change in the exciting field of Urban Informatics - you have the flexibility to learn around your busy schedule.
- **Fully Remote:** Through online synchronous classes and support videos and materials, you can learn from anywhere in the world - while still receiving live instruction and personal attention from our faculty.
- **Taught by World-Class Faculty:** All courses are taught by CUSP’s faculty members, including experts in the physical and natural sciences; computer and data science; the social sciences; and engineering.
With the Online Advanced Certificate, current and future urban practitioners have the unparalleled opportunity to use technology for social good. At the end of the program, you will be able to:

- Develop smart data-driven urban policies and innovative solutions to help make cities more efficient and equitable.
- Operationalize questions on urban challenges as actionable, data-driven analyses, and build robust analyses of these questions using reproducible code.
- Present and communicate data-driven insights on urban challenges to key stakeholders, including city governments and policy decision makers.
- Understand the application of data analysis and programming tools to social and behavioral sciences, business operations, and urban sciences.
- Address the ethical implications of data collection and analysis in urban environments.
- Apply frameworks by which to assess whether data is addressing or exacerbating urban challenges, such as racial inequity.

Please visit our website for full course descriptions.

### CURRICULUM

Students take 4 courses (12 credits) over the Fall and Spring semesters. Students choose from the following list of 6 courses according to their interests, technical skill levels, and professional aspirations.

- Introduction to Programming for Solving Urban Challenges
- Urban Data Science
- Innovative City Governance
- Geographic Information Systems
- Civic Analytics, Urban Intelligence and Data-Informed Leadership
- Data Visualization

### APPLY TODAY

LAUNCHING FALL 2021

Learn More:
cusp.nyu.edu/online-advanced-certificate

Online Application:
apply.engineering.nyu.edu/apply

Contact Us:
engineering.gradinfo@nyu.edu

### INFORMATICS WITH IMPACT

Whether you are looking to become an urban scientist or take the next step in your current role, CUSP will prepare you for an exciting and rewarding career in the rapidly growing field of Urban Informatics.

The Online Advanced Certificate will help you:

- Advance data-driven skills to propel your career in urban analytics and research, including developing innovative solutions to complex urban problems.
- Understand how to collect and analyze large quantities of data in a variety of technical and social domains, for use in both the public and private sectors.
- Expand your technical skillset to include data manipulation and processing using a variety of tools- such as Python and GIS- for use in non-governmental organizations, government and municipal operations, and business.
- Develop skills that directly impact your future workplace, including engaging directly with field leaders, creating compelling data visualizations, and developing engaging communication and presentation skills.