APPLIED URBAN SCIENCE AND INFORMATICS (MS)

Department Website (https://engineering.nyu.edu/academics/programs/applied-urban-science-and-informatics-ms/)

NYSED: 35795 **HEGIS:** 0799.00 **CIP:** 11.0104

Program Description

The Applied Urban Science and Informatics MS offered by NYU's Center for Urban Science and Progress (CUSP) (https://engineering.nyu.edu/center-urban-science-and-progress-cusp/) provides students with the opportunity to engage in the interdisciplinary study of urban science and informatics and apply technical skills to urban problems. The two-year, 36-credit MS program provides core courses in urban science, urban informatics, and information and communication technology in cities. Students will have the opportunity to select from multiple urban domains and informatics disciplines to gain breadth and depth in the application of big data analytics to urban problems.

Admissions

To ensure the most efficient application processing, submit your application before sending documents or submitting test scores.

Mailing Address
(For all application documents. Please note that this is our document processing center in Pennsylvania):
NYU Tandon School of Engineering
Graduate Admissions Processing Center
458 Pike Road
Huntingdon Valley, PA 19006

Cyber Fellows applicants can review application requirements here. (https://engineering.nyu.edu/academics/programs/cybersecurity-ms-online/nyu-cyber-fellows/) All other applicants, review the requirements below.

Personal Essay

As part of your application, you are expected to provide a response, in written form, to two prompts. A response to both prompts is required. This is an opportunity for you to give us a stronger sense of who you are, as a person. Your essay should be as unique as you are and should be written using your own voice. Include each prompt as the header for each of your two responses. When finished, combine your response to both prompts into one single PDF and upload it to the application. Your total essay upload should be 12 pt, Arial font and no more than two pages, double-spaced, in length.

Prompt 1: Drawing from your previous academic, professional and personal experiences, tell us what attracted you to the program of study you have noted in your application. Be very specific about your past experiences and how they shaped your interests.

Prompt 2: Students often have a wide range of ideas and plans for what they hope to achieve after they receive their graduate degree. Tell us what your 5-year plan is after completing a degree from NYU Tandon.

Resume

A copy of your most recent résumé or curriculum vitae must be uploaded to the online application.

Official Transcripts and Degree Conferral

For admissions review, we will accept copies of your official transcript and proof of undergraduate degree (if completed) uploaded to your application or emailed to us at engineering.gradinfo@nyu.edu. Screenshots or student portal downloads will not be accepted or used in your application review. Please note that we require transcripts from all institutions attended.

If you are offered admission, we will require official final transcripts sent to our office directly from your undergraduate institution to finalize your admission, prior to enrollment in your first semester. To satisfy this requirement, we will accept hard copy/physical transcripts, or electronic transcripts. No scanned copies will be accepted once you've been admitted.

A hard copy or physical transcript is considered official when it is in a sealed, unopened envelope mailed directly from your previous institution to NYU Tandon. An electronic transcript is considered official if it is sent through a digital credential service such as Parchment, Student Clearinghouse, Credential Solutions or a similar, secure third-party platform, or emailed directly from your institution's registrar's office.

English Language Proficiency Testing

All applicants to the NYU Tandon School of Engineering for graduate study must demonstrate excellent English language skills in reading, writing, speaking, and comprehension. Proficiency will be determined by the Test of English as a Foreign Language (TOEFL)* (http://www.ets.org/toefl/), International English Language Testing System (IELTS) (https://ielts.org/take-a-test/), Duolingo English Test (https://englishtest.duolingo.com/applicants/), Cambridge Assessment English (https://www.cambridgeenglish.org/exams-and-tests/qualifications/general/), or Pearson PTE Academic (http://pearsonpte.com/test-takers/test/) exams. You must submit your English language proficiency scores electronically via the testing agency. The name and date of birth on your test scores must match the name and date of birth on your application, in order for us to receive your scores correctly.

The Office of Graduate Enrollment Management and Admissions reserves the right to request proof of English competency from any applicant. At least one of these exams is required for:

1. All International applicants (those who have or will request a visa) OR
2. Applicants whose first language is not English and/or who have not completed a bachelor's degree in the United States.

The NYU Tandon School of Engineering requires that graduate applicants achieve a minimum TOEFL score of 90 on the internet-based test, an overall band of 7.0 on IELTS, a score of 125 on the Duolingo English Test, a 65 on the Pearson PTE Academics exam, or a C1 Advanced or C2 Proficiency on the Cambridge Assessment English exam.

The NYU Tandon School of Engineering TOEFL institution code is 2668. Please send electronic IELTS scores to New York University Tandon School of Engineering (https://www.ielts.org/en-us/usa/ielts-for-test-takers/results/).

TOEFL, IELTS, and PTE scores are valid for two years. The test must be taken again if your score is older than two years at the time of application submission.

ETS offers at-home testing for the TOEFL. Please visit their website here for more information and to see if you are eligible for this option: TOEFL iBT Home Edition (https://www.ets.org/toefl/test-takers/ibt/why/options/)

Applicants may request a waiver of English Language Proficiency Testing for special cases by submitting a waiver request form. If you have only attended a US institution for four years and earned a bachelor's degree, or two years, and earned a master's degree, you will automatically be reviewed for a waiver and do not need to submit a waiver request form. If you have attended both a US school and a school outside of the US, please submit a waiver. This request will be reviewed only after transcripts have been received.

Deadlines to submit your waiver request are below:

All Applicants

Fall: March 1

Spring: November 15

Recommendations

You are required to send two recommendations; we will accept up to three. Recommendations should be provided by professors, employers, supervisors, or others (no friends or relatives) who are able to comment on your academic achievements, research potential and your professional goals. We ask that you input your recommender's information into the online application and they will be prompted to complete a recommendation form electronically. Additionally, there is an option to submit a recommendation letter along with the recommendation form. The letter is optional and not required. Please note that if the optional recommendation letter is submitted, it MUST be on professional letterhead and come from the recommender's company or university email address. Recommendation letters received outside of these requirements will be subject to further review and asked to be resubmitted in order to meet our requirements.

Special Notes from the Office of Graduate Admissions

- Due to the volume of applications and related materials received, the Office of Graduate Admissions will only contact you if your application was successfully submitted and is deemed incomplete because of missing required materials. Otherwise, you will hear from us when a decision has been rendered.
- All graduate programs at NYU Tandon School of Engineering are considered STEM Programs based on the government classification (CIP codes) and are available for the STEM OPT extension. The STEM OPT extension is a 24-month period of temporary training that directly relates to an F-1 student's program of study in an approved STEM field. Eligible F-1 students with STEM degrees who finish their program of study and participate in an initial period of regular 12-month post-completion OPT have to option to apply for this extension for a total OPT period of 36 months. More information on STEM OPT at NYU. (http://www.nyu.edu/students/student-information-and-resources/student-visa-and-immigration/alumni/extend-your-opt/stem-opt.html)

Program Requirements

The program requires the completion of 36 credits, comprised of the following:

Course	Title	Credits
Core Requirements		
Lab		
CUSP-GX 7000	Data Governance, Ethics and Privacy	0
Urban Data Science Methodologies		
CUSP-GX 7013	Introduction to Applied Data Science	3
CUSP-GX 7023	Applied Data Science	3
CUSP-GX 7033	Machine Learning for Cities	3
Urban Science and Policy Methodologies		
Select one of the following:		3
CUSP-GX 7043	Civic Analytics and Urban Intelligence	
CUSP-GX 7053	Innovative City Governance	
Capstone Project		
CUSP-GX 7103	Capstone Urban Science Intensive I	3
CUSP-GX 7113	Capstone Urban Science Intensive II	3
Electives		
Other Elective Credits [1]		18
Total Credits		**36**

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Students may customize their education with specialized CUSP electives in data science, domain applications, and civic analytics. Students take 18 credits of elective offerings in the M.S. program.

Capstone Project

During the 6-credit, two-course Capstone Project, students will work in a multidisciplinary environment with a city agency or industry partner to address a current urban challenge in a particular domain, such as transit, public health, or environmental sustainability. Students will play an important role in the project, working with other researchers - and even entrepreneurs - to unlock the potential in big data to make their city better.

Capstone projects may be part of larger, ongoing NYU-CUSP research efforts involving city agencies and NYU#CUSP industry partners, self-contained projects involving agencies and industry partners, or more entrepreneurial in focus and content, where a team of students will work on developing a new solution derived from their analysis.

Sample Plan of Study

Course	Title	Credits
1st Semester/Term		
CUSP-GX 7000	Data Governance, Ethics and Privacy	0
CUSP-GX 7013	Introduction to Applied Data Science	3
CUSP-GX 7043	Civic Analytics and Urban Intelligence	3
Elective		3
	Credits	**9**
2nd Semester/Term		
CUSP-GX 7023	Applied Data Science	3
CUSP-GX 7033	Machine Learning for Cities	3
Elective		3
	Credits	**9**

3rd Semester/Term		
CUSP-GX 7103	Capstone Urban Science Intensive I	3
Elective		3
Elective		3
	Credits	**9**
4th Semester/Term		
CUSP-GX 7113	Capstone Urban Science Intensive II	3
Elective		3
Elective		3
	Credits	**9**
	Total Credits	**36**

Learning Outcomes

Upon successful completion of the program, graduates will:

1. Identify and analyze urban issues with a focus on communication, innovation and solution building.
2. Develop the technical skills to analyze data and communicate findings.
3. Understand and communicate for decision making at the city and policy making level.
4. Engage, support or contribute to the development of applied research in the service of cities and public good.

Policies

NYU Policies

University-wide policies can be found on the New York University Policy pages (https://bulletins.nyu.edu/nyu/policies/).

Tandon Policies

Additional academic policies can be found on the Tandon academic policy page (https://bulletins.nyu.edu/graduate/engineering/academic-policies/).