



**Civic Analytics & Urban Intelligence
FALL 2019**

Tuesdays 6:30 to 9:45 pm

Location:

Instructors:

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I Course Description

This course provides an overview of city government, operations and the role of information and communication technologies within cities and related policy domains. There will be an emphasis on new approaches to urban governance ranging from performance management to innovation delivery units to smarter cities frameworks and public entrepreneurship. Throughout the course we will focus intently on the importance of data and how to collect it; and also how it should be presented from a policy, management and political perspective to ensure impact. Specific attention will be given to a number of policy domains including transportation, economic development, education, criminal justice and how urban informatics can be used to improve operational and resource efficiencies within each domain. In addition, the role of civic engagement and community participation in the context of open data and citizen science is explored. Case studies and best practice examples will be used extensively.

II Prerequisites

- Graduate standing in CUSP. Non-CUSP students by permission.

III Course Objectives

- Understand the overall structure and governance of urban operations
- Analyze drivers, constraints and metrics of key urban domains
- Understand the role of data and emerging technologies in cities and opportunities and constraints to employing data analytics
- Understand role of citizens in the effective functioning of urban systems

IV Course Requirements

In addition to weekly readings and lectures, the course requirements include participation, weekly assignments and a final paper. The final paper will include a problem set and case study along with an in-class presentation. Several ‘signal’ assignments will be issued that will often be presented as part of class discussion. A signal is a news item, policy report, photograph, data visual, video or other content that represents a critical direction of change or emerging trend. Each signal should contain a pointer to the document (URL, APA-style citation) and a 200-250 word synopsis highlighting the key development(s) in the signal, and your interpretation of its significance for cities and that week’s topic session. And signals to the degree possible should build on each other rather than being a random collection of links. In successive weeks, draw connections back to submissions from earlier weeks. You can think of this exercise as part of the research and idea refinement process for the final paper. Class participation is an integral part of the course and will factor into the final grade. Students are expected to attend all classes and complete all readings prior to the session indicated in the course outline below.

A Note on Written Submission and Presentation Requirements:

All written work will be submitted before the beginning of class via Classes. In addition, signal assignments will be submitted to a forum for other classmates to read. Written submissions should be double-spaced in Times New Roman 12-point font, with 1” margins. All charts, graphs, and tables should be included at the end of the paper and referenced in the text. They are not counted against the page limits. Pages and charts should be numbered appropriately. All sources used should be appropriately cited in the text and included in a list of references at the end of the paper. Spelling, grammar, format, and style of the written work will all factor into the grade, so please be make sure to leave sufficient time to proof-read and edit your work.

More details on the case study paper (including specific written submission and presentation requirements) will be distributed during the first weeks of the semester.

V Grading

All requirements must be completed by the date specified and handed in at the beginning of class or they will not be counted toward the final grade. No late assignments will be accepted.

- Weekly “Signal” Assignments – 25%
- Case Study Paper and Presentation – 50%
 - (Presentation and summary – 10%; final paper – 40%)
- Class Participation and Attendance – 25%

VI NYU Classes

You must have access to the class Blackboard site (<http://classes.nyu.edu/>). All announcements and class-related documents (supplemental and suggested readings, discussion questions, etc.) will be posted there.

Some class announcements will be distributed via NYU e-mail. Thus, it is important that you actively use your NYU e-mail account, or have appropriate forwarding set up on NYU Home (<https://home.nyu.edu/>).

All readings listed in the Course Outline below are required, unless noted as optional. All readings will be available at NYU Classes or provided through an internet link.

VII Statement of Academic Integrity

NYU CUSP values both open inquiry and academic integrity. Students graduate programs are expected to follow standards of excellence set forth by New York University. Such standards include respect, honesty, and responsibility. The program does not tolerate violations to academic integrity including:

- Plagiarism
- Cheating on an exam
- Submitting your own work toward requirements in more than one course without prior approval from the instructor
- Collaborating with other students for work expected to be completed individually
- Giving your work to another student to submit as his/her own
- Purchasing or using papers or work online or from a commercial firm and presenting it as your own work

Students are expected to familiarize themselves with the University's policy on academic integrity and CUSP's policies on plagiarism as they will be expected to adhere to such policies at all times – as a student and an alumni of New York University.

The University's policies concerning plagiarism, in particular, will be strictly followed. Please consult the *Chicago Manual of Style* for guidelines on citations. Do not hesitate to ask if you have any questions regarding writing style, citations, or any academic policies.

VIII Class Schedule (subject to change)

September 3 – Class Overview, Intro to Policy & Urban Governance

Topics

- Class overview (goals, expectations, assignments)
- Introduction to policy making
- Urban governance, operations and policy

Reading

- Kingdon, Agendas, Alternatives, and Public Policies. Pages 71-98, 116-144, 165-195
- Judd, Dennis and Todd Swanstrom, City Politics. Pages 1-8, 44-47, 91-99
- Lipsky, Michael Street-Level Bureaucracy, Chapter 1

September 10 – Problem Identification & Ideation

Topics

- Introduction to innovative approaches and management, e.g., Lean, human-centered design
- Lean management
- Human-Centered design

Readings

- Bason Introduction and Chapter 1
- Bloomberg Innovation Delivery Playbook Chapters 1, 2
- Goldsmith/Kleiman, Chapter 2
- Mazzucato, The Entrepreneurial State, Introduction

Guest Lecture: Brian Platt, Business Administrator, Jersey City

September 17 – Policy Domain: Public Safety and Justice

Topics

- Trends in policing and prosecution
- Responses to over-incarceration
- Community and restorative justice
- Drones
- Homeland and local government security

Guest lecture:

Alice Hong, Homeland Security

Reading

- Weisburd, D., Mastrofski, S. D., McNally, A., Greenspan, R., & Willis, J. J. (2003).
- Reforming to Preserve: CompStat and Strategic Problem Solving in American Policing. *Criminology & Public Policy*, 2 (3), 421-456.

- Bachner, Jennifer (2013). Predictive Policing: Preventing Crime with Data and Analytics. IBM Center for the Business of Government

September 24 – Transportation

Topics

- Transportation modes
- Complete streets
- Sharing economy
- Autonomous vehicles

Guest lecture: (to be confirmed)

Reading

- 1) Los Angeles Technology Department of Transportation Action Plan, <https://ladot.io/wp-content/uploads/2019/03/LADOT-TAP-v7-1.pdf>
- 2) Governing Transport in the Algorithmic Age, <https://www.itf-oecd.org/governing-transport-algorithmic-age>
- 3) Taming the Autonomous Vehicle, <https://www.bbhub.io/dotorg/sites/2/2017/05/TamingtheAutonomousVehicleSpreadsPDE.pdf>

Guest Speaker: Jascha Franklin-Hodges, Open Mobility Foundation and Edward Fu, Senior Regulatory Council, Bird; Ryan Westrom who manages the East Coast Region for Ford Smart Mobility

October 1 – Innovation Drivers

Topics

- Ideation
- Dashboards
- Field work—service journeys

Readings

- IDEO Human Centered Design Kit
- Array of website including CityScore, KCStat and others

October 8 – NO CLASS

October 15 – NO CLASS

October 22 – Internet of Things and City Sensors

Topics

- What is a smart city and who will benefit/profit from it?
- Sensors and privacy

Guest lecture:

Tom Schenk, Director of Strategic Insights; KPMG; former Chief Data Officer, City of Chicago

Brenna Berman, Executive Director, City Tech Collaborative, UI Labs; former Chief Information Officer, City of Chicago

Reading

- Hollands, R. G. (2008). Will the real smart city please stand up? Intelligent, progressive or entrepreneurial? *City*, 12(3), 303-320.
- How to Build a Smart City, podcast. <http://freakonomics.com/podcast/dan-doctoroff>

October 29 – Predictive Analytics & Open Data**

Topics

- Predictive analytics
- Big data and policy making
- Role & uses of open data — has it lived up to its potential?

Guest lecture:

Andrew Nicklin, Director of Data Practices, Johns Hopkins University Center for Government Excellence and former Director of Research & Development, New York City Department of Information Technology and Telecommunications

Jackie Lu, Associate Director, Public Realm, Sidewalk Labs; former Director of Data Analytics, New York City Parks Department

Reading

- Goldsmith / Kleiman, Ch. 2
- Nemani blog post, Open Data, Civic Engagement, and Delivery: Did we go the wrong way? <https://medium.com/@abhinemani/open-data-civic-engagement-and-delivery-28b990f321ce#.8gtws9twl>
- Nathan Heller, ""Estonia, the Digital Republic,"" *New Yorker*, 2017
- Transforming Cities with Technology. *The Economist*. October, 2017. <https://www.youtube.com/watch?v=hRY-ZUIJXY0&feature=youtu.be>

Signal: Write signal about the Chicago Array of Things initiative

November 5 – Funding Tech Innovation in Cities

Topics

- Private fundraising
- State and federal government fundraising
- Public private partnerships
- Tech = better, faster, cheaper solutions and new revenue opportunities

Guest lecture:

NYSERDA or transit lab and Andrew Rasiej, CEO, Civic Hall

November 12 – Built environment and Urban Spaces

Topics

- Redeveloping urban land for tech development
- Incubators and start ups
- Smart buildings
- Smart Infrastructure

Guest lecture: Micah Kotch, Urban X; Miguel Gamino, MasterCard

November 19 – New York Laboratory

Topics:

- Putting the course themes and policy domains together what does it all look like in one city
- New York's greatest strengths and challenges for a technology and policy reform perspective
- Creative ways of advancing technology and data improvements in New York

Guest Lecture: Linda Gibbs former Deputy Mayor; Jonathan Bowles, Executive Director, Center for an Urban Future; Pam Elardo, Deputy Commissioner – Waste Water, NYC DEP

November 26 – Final Presentations

December 3 – Final Presentations
