11.A14: Understanding Urban Complexity
Syllabus and Orientation Notes

Ezra Haber Glenn, Lecturer

Fall 2014

1 Contact Information

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<tbody>
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<td>7-337</td>
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Class website:
http://stellar.mit.edu/S/course/11/fa14/11.A14/

2 Overview

Cities are massive, interconnected, complicated systems, but luckily there are techniques to observe and make sense of them. In particular, in the seminar we will get to know Greater Boston and the field of urban planning by thinking about urban systems, urban dynamics, and urban information.

Each week we’ll explore a different aspect of city life and urban planning using scholarly articles and real-world examples; topics will include demographics, transit, housing and development patterns, ecological systems, and more. We’ll learn techniques for analysis and visualization using data, maps, and digital imagery, but we’ll also get to get out into the city to see what sort of information we can gather from first-hand observation.

3 Logistics

3.1 Class

Our class meets once a week (Tuesday 3:00–5:00 PM) in room 9–451. Although it should go without saying, you are expected to attend class each week. If for some reason you are unable to attend, please let me know in advance, and be sure to follow up with me or your classmates to figure out what you missed—including changes to the syllabus, short assignments, discussions of current events, or other important announcements.
Beyond this, you are expected to participate. This is a seminar, not a lecture; a lot of the material will come to life through our interactions—we will have group discussions, pursue interesting and meaningful sidetracks, listen to guest speakers and student presentations, and even occasionally play games. All of these are essential parts of the course material, and you won’t be able to just get it later from the readings or the web.

I expect/hope that we will develop a comfortable, organic conversation style as we get to know the material and each other, but to help structure class participation I will also ask individual students to prepare material for each discussion. Roughly two times in the semester, you will be asked to providing a short summary of the most important points in the reading, along with some questions for discussion.

3.2 Office Hours

I don’t have formal office hours, but I am always happy to meet with you outside of class, if you need to talk about something. Since this is an Advising Seminar, I will also be contacting you individually to arrange for a regular schedule of one-on-one advising meetings throughout the semester.

3.3 Feedback

Somewhere in here I wanted to be sure to mention that I really do care about your ideas and feedback on the course, and ideally would want it during the semester so I can be aware of problems (or opportunities) and make changes as necessary. Please feel free to contact me with issues as they arise, either in person or through email (or even anonymous notes).

4 Requirements

4.1 Readings

For every week of the Outline (below) we will have a short reading—usually one or two articles or chapters from a book. Please do these readings as early as possible in the week for which they are assigned, and come prepared to discuss them.

Some of these readings will be available on the Stellar site; others will be handed out in class. There are no required textbooks for the class.

4.2 Grading

As with other Freshman Advising Seminars, grading is pass/no-record (P/NR).
4.3 Some Required Elements

Although all of this should go without saying, the Institute requires us to say the following:

4.3.1 Accommodation for Disabilities

If you have a documented disability, or any other problem you think may affect your ability to perform in class, please see me early in the semester so that arrangements may be made to accommodate you.

4.3.2 Academic Misconduct

Plagiarism and cheating are both academic crimes. Never (1) turn in an assignment that you did not write yourself, (2) turn in an assignment for this class that you previously turned in for another class, or (3) cheat on an exam. If you do so, it may result in a failing grade for the class, and possibly even suspension from the college. Please see me if you have any questions about what constitutes plagiarism. Anyone caught cheating on an exam will be reported to the provost in line with recognized university procedures.

5 Schedule

Note: Please complete all reading(s) prior to the class date listed below.

08.26 Pre-class meeting (optional). Nothing to prepare.

09.09 Introduction to the class; thinking about cities.


b. “Green Manhattan,” David Owen, from The New Yorker (October 18, 2004).

09.16 Walking and watching cities.


09.23 Solving puzzles with data: two clear examples.


09.30 The social life of small urban places. [Film screening.]


10.07 Demographics, Density, Decline, Diversity, and Dynamic Change: Working with the Census Data at the Neighborhood Level

b. Additional reading/exercise on Census Data

10.14 No class.

10.21 Managing Cities and Open Data


10.28 The image of the city.


11.04 Layering time, nature, and process.


11.11 The science of complexity.

c. Browse the reports of the New England Complex Systems Institute (see “Research” at [http://www.necsi.edu/research/overview.php](http://www.necsi.edu/research/overview.php)).

11.18 Weaving cities with pattern languages and semi-lattices.


11.25 Making sense through metaphors: city as organism/city as ecosystem.


12.02 Game theory, simulation, and complex behaviors.


12.09 Cities in regions (optional/TBD).
