6-11 Narrative example:

Ada comes to MIT with a love of transportation maps, an interest in using data, and some growing concerns about the effects of climate change on the planet. In her first semester, she completes some of the GIRs, and selects "Urban Energy Systems and Policy" (11.165) to meet her first HASS requirement. Excited by the possibility of using her technical abilities to improve energy systems, she takes a UROP in the spring, where she helps develop an online tool to help local governments track energy use. (She also completes her remaining science GIRs, as well a 6.00 to sharpen her programming skills). At the end of the year, she declares 6-11 as a major and requests an advisor in Course 11.

In her sophomore year, Ada completes most of the foundational work on the "course 6" side of the major: 6.006, 6.009, 6.008, as well as math (6.042) component. To balance all of this quantitative/technical coursework, she also takes a pair of HASS electives, as well as "Big Plans" (11.123), which meets her second CI-H requirement; for her final project, she develops a conceptual plan for an integrated, intelligent personal transit system for a small city and analyzes the costs and energy savings when compared to existing models. The possibility to beat the "zero sum game" through better design and coordination excites her, while the challenges of thinking through the requirements of her proposed solution pushes her to think more deeply about questions related to scale in urban science.

As a junior, Ada's coursework helps her make the transition from an "engaged tinkerer" to a "urban scientist," providing the statistics and analytical tools she needs to put data into action. By learning advanced math and probability, as well as spatial mapping and analysis techniques, she is able to model complex urban systems and explore the ways infrastructural, operational, and policy change might affect --- and can ideally improve -- the production and delivery of energy to our cities. During her junior year, Ada spends 8 – 10 hours a week in an internship with the city of Boston's Urban Mechanics Program, working on a series of applied problem-solving assignments with a team of students, under the direction of the internship coordinator in the Mayor's Office. In the summer between her junior and senior year, with help from the Course 6-11 career office, she finds a summer job in Mexico City, working to advise the city on the implementation of a new autonomous vehicles program.

Ada's senior year builds on all of her foundational and exploratory work, as well as her experiences in the field in the United States and Mexico. connecting mind and hand to design, build, and test new data tools for use by urban planners and the energy utility industry. In her fall Urban Science Lab she works with a team to develop new crowdsourcing tools to track energy use in data-poor African cities, and begins to recognize the tremendous potential for energy efficiency improvements in the developing world. In the spring she works closely with a professor in course 6, who mentors her capstone project, resulting in a prototype and a business plan for a tech startup that wins a prize and seed funding from DesignX the venture accelerator in the School of Architecture and Planning).

Sample Course Map: First-Term Sophomore
General Institute Requirement (GIR)
Course 6 requirement (* = potential for "urban science track" with specialized examples, applied problems, data sets)
Course 11 requirement

Year 1 Fall	Year 1 Spring
8.01 18.01 Elective HASS elective (possible course 11)	8.02 18.02 Elective HASS elective (possible course 11)
Year 2 Fall	Year 2 Spring
6.00* 6.042* REST Biology 11.001 (HASS)	6.009* (Lab) 6.006 Chemistry HASS elective
Year 3 Fall	Year 3 Spring
6.031 6.008 REST Policy/Ethics (11.002, 11.165, etc.) (HASS)	11.188 (CI-M; Lab) Advance CS Elective Urban Science Elective #1 HASS elective
Year 4 Fall	Year 4 Spring
11.007 (CI-M) Urban Science Elective #2 6.UR or 11.THT (CI-M) HASS elective	6.UAR or 11.THU HASS elective Urban Science Elective #3 Elective

Sample Course Map: Second-Term Sophomore
General Institute Requirement (GIR)
Course 6 requirement (* = potential for "urban science track" with specialized examples, applied problems, data sets)
Course 11 requirement

Year 1 Fall	Year 1 Spring
8.01 18.01 Elective HASS elective (possible course 11)	8.02 18.02 Elective HASS elective (possible course 11)
Year 2 Fall	Year 2 Spring
HASS elective Chemistry REST HASS elective	6.00* 6.042* REST 6.009* (Lab) HASS elective
Year 3 Fall	Year 3 Spring
6.006 6.008 Policy/Ethics (11.002, 11.165, etc.) (HASS) 11.001 (HASS)	Biology 11.188 (CI-M; Lab) 6.031 Urban Science Elective #1
Year 4 Fall	Year 4 Spring
Advance CS Elective 11.007 (CI-M) 6.UR or 11.THT (CI-M) Urban Science Elective #2	6.UAR or 11.THU HASS elective Urban Science Elective #3 HASS elective

Sample Course Map: First-Term Junior
General Institute Requirement (GIR)
Course 6 requirement (* = potential for "urban science track" with specialized examples, applied problems, data sets)
Course 11 requirement

Year 1 Fall 8.01 18.01 Elective HASS elective (possible course 11)	Year 1 Spring 8.02 18.02 Elective HASS elective (possible course 11)
Year 2 Fall HASS elective REST HASS elective Chemistry	Year 2 Spring 6.00* 6.042* REST HASS elective Biology
Year 3 Fall 11.001 (HASS) 6.006 6.009* (Lab) Policy/Ethics (11.002, 11.165, etc.) (HASS)	Year 3 Spring 11.188 (CI-M; Lab) Elective 6.031 6.008
Year 4 Fall 11.007 (CI-M) Urban Science Elective #1 6.UR or 11.THT (CI-M) HASS elective	Year 4 Spring 6.UAR or 11.THU Advance CS Elective Urban Science Elective #2 Urban Science Elective #3