This is a class about how cities, suburbs, and metropolitan areas change. It is an introductory subject for undergraduates that examines both the evolving structure of the American metropolis and the ways that it can be designed and developed. We will survey the ideas of a wide range of people who have addressed urban problems and acted to alter cities, suburbs, and regions through urban design and development in both the United States and in regions around the world. We will analyze the values implicit in each of their proposals, stressing the connections between ideas and design. We will examine the elements that make up cities and consider why particular places look the way they do. We will look at designs for new towns and examine the ways that existing cities have spread and been redeveloped. Topics range from grand ideas proposed by single individuals to smaller more incremental processes carried out through collaboration by a variety of contending parties. You will see how cities and suburbs have been changed in the past and how you and others may help change them in the future. Together, we will consider many different tools and strategies used by designers and planners to understand cities, including big data analytics, remote sensing, and other tools of ‘urban science.’

Lectures and discussions will be supplemented by videos and web-based resources, by field study, and by visits from guest speakers who will present cases involving recent projects that illustrate the scope and methods of urban design practice and theory.

Work for the class will include extensive reading, three short written exercises, a longer final paper, and two exams (one in-class and the other a Final). Approximately 25% of your grade will be based on the quality of your final paper; 5% on Exercise 1, 10% on Exercise 2 (GIS Mapping), 20% on Exercise 3 (a group project), 15% on each of the two exams, and 10% on class participation. All readings are available on the class Learning Modules site. It is essential that all reading be completed in advance of each class.
Written Assignments and Exams

Due Dates
Exercise #1 (Good and Bad Environments): Due Wednesday, September 11
Exercise #2 (Urban Data Analysis and Visualization): Due Wednesday, October 2
Exercise #3 (Urban Form & Use: Big and Small Data): Due Wednesday, November 13
Final Paper: Due (electronically) by Friday, December 6 (possible extension to Dec. 10)
Final Exam (Short answer/essay format): Date and time TBD

Exercise 1, 2, and 3 must be submitted electronically through the class Stellar site before the beginning of class on the day that they are due. One full letter grade will be deducted per day that a paper is overdue.

Writing Evaluation and Assistance
The MIT Writing and Communication Center offers free one-on-one professional advice from communication experts. The WCC is staffed completely by MIT lecturers. All have advanced degrees. All are experienced college classroom teachers of communication. All are published scholars and writers. WCC lecturers have a combined 130 years’ worth of teaching here at MIT (ranging from 1 to 26 years). We work with undergraduates, graduate students, post-docs, faculty, staff, alumni, and spouses. The WCC helps everyone strategize about all types of academic and professional writing as well as oral presentations and slide design. No matter what department or discipline you are in, the WCC helps you think your way more deeply into your topic, and helps you see new implications in your data, research, and ideas. The WCC also helps with non-native speaker issues, from writing and grammar to pronunciation and conversation practice. To make an appointment, go to https://mit.mywconline.com and register with our online scheduler. The WCC is at E18-233, 50 Ames Street.

Disabilities
If you have a documented disability, or any other problem you think may affect your ability to perform in class, please contact the teaching team early in the semester so that arrangements may be made to accommodate you. For MIT’s policy on accommodations for disabilities, please follow this link: http://mit.edu/uaap/sds/students/

Academic Integrity
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 Institute. Please see the teaching team 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 Institute procedures. I also strongly suggest that you read MIT’s guidelines for academic integrity before submitting your first paper assignment: http://integrity.mit.edu/
PART I: CHANGING CITIES:
TRANSLATING VALUES INTO DESIGN

September 4: INTRODUCTION

Questions of the Day: *What is Urban Design? What is Urban Development? How are they connected?*

Required Readings:

**ASSIGNED: Exercise 1, Due in class September 11**

September 9: WAYS OF SEEING THE CITY

Questions of the Day: *What are the visible signs of change in cities? How can we measure the form of cities? How do the underlying values of the observer influence what is observed?*

Required reading:


**September 11: THE FORCES THAT MADE BOSTON**

Question of the Day: *What does the history of Boston’s development tell us about the issues facing the city today?*

Required Reading:


Optional Reading:

Mayor’s Office, Boston: Review Website for Office of New Urban Mechanics
https://www.boston.gov/departments/new-urban-mechanics

*DUE: Exercise 1 due by electronic submission before class. In-class Discussion.*

**September 16: THE DESIGN OF AMERICAN CITIES**

Questions of the Day: *What is the difference between agrarian settlements and industrial cities? What happened to cities as America industrialized? How did the wish to improve (or control) labor conditions contribute to the rise of housing reform and urban design?*

Required Readings:


Optional:

Video: Where Manhattan’s Grid Came From
https://www.youtube.com/watch?v=QalOfgz8FVY
September 18: INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS (GIS) MAPPING

Guest Instructor: Madeline Wrable (GIS specialist - Rotch Library)

**ASSIGNED: Exercise 2 due in class on October 2**

** Students who do not have substantial experience with GIS should plan to attend one of the optional (highly recommended) 2-hr lab sessions with the Rotch Library GIS team on:
  - Tuesday, Sept 24th (10am-12pm; 5pm-7pm);
  - Wednesday Sept 25th (5pm-7pm);
  - Thursday Sept 26th (10am-12pm; 5pm-7pm).
Each student should select the 2-hour time window that fits his/her schedule through a doodle poll.

If you are not available during any of these times or if you would like extra help, the GIS Lab at Rotch library offers walk-in help hours from Monday to Thursday (1pm to 4pm) and on Friday (2pm - 4pm).

September 23: ZONING: DEVELOPMENT CONTROLS AND THE INSTITUTIONALIZATION OF PLANNING

Question of the Day: Can we design cities without designing buildings? What are some common forms of zoning regulation and where did they come from historically? What are the benefits and downsides of zoning as a planning tool?

Required Readings:


Optional Readings:


**ASSIGNED: Exercise 3, Final Product Due November 13**

**September 25: INCENTIVE ZONING**

Question of the Day: *What is the relationship between development incentives and quality public space?*

Required Readings:


In-class Video: “The Social Life of Small Urban Spaces” [Excerpted]

**DUE: Team Preferences and Mapping Skills Google Form for Exercise 3**
September 30: ELEMENTS OF URBANISM 1: SKYSCRAPERS

Questions of the Day: Why skyscrapers? How is density related to building heights? Where should a city be tall and why?

Required Readings:


Optional Reading:


September 28: WALKING TOUR OF BOSTON (Optional but Highly Encouraged)

Meet at Skywalk Observatory Kiosk, in the Prudential Arcade in the Prudential Center at 10:30 a.m. (Map: www.prudentialcenter.com/map). Walk will end up at Quincy Market by lunchtime.
October 2: ELEMENTS OF URBANISM 2: STREETS AND SIDEWALKS

Question of the Day: What role do streets and sidewalks play in urban form?

Required Readings:


Optional Reading:

DUE: Submit Exercise 2 Before Class by Electronic Submission.

October 7: ELEMENTS OF URBANISM 3: PARKS, PLAZAS, & OPEN SPACE

Questions of the Day: How do open spaces contribute to our sense of urban form? Why do cities have parks and plazas?

Required Readings:


Optional Reading:

October 9:   ELEMENTS OF URBANISM 4: DENSITY AND SPRAWL

Questions of the Day: What does density mean? Sprawl? Are they opposites? How and why is density an important concept for thinking about cities?

Required Readings:


Oliver Gillham, “What is Sprawl?” from The Limitless City: A Primer on the Urban Sprawl Debate (pp. 3-23).


October 14:   NO CLASS, Columbus Day/Indigenous Peoples’ Day Holiday

October 16:   ELEMENTS OF URBANISM 5: DATA AND SENSORS
Guest: Prof. Sarah Williams

Question of the Day: How can we use big data to bring about urban policy change?

Required Readings:

Code for America Website: https://www.codeforamerica.org/

Civic Data Design Lab: http://civicdatadesignlab.mit.edu/

October 21:   Midterm Exam, in class
   *Note: We will schedule a review session in advance
PART III: CHANGING CITIES BY DESIGNING NEW ONES

October 23: THREE URBAN UTOPIAS:
1. Ebenezer Howard’s Garden City
2. Le Corbusier’s Radiant City
3. Frank Lloyd Wright’s Broadacre City

Questions of the Day: What assumptions does each thinker make about how people should live in cities? What beliefs does each hold about the relationship between city design and social change? What aspects of these “utopias” have actually come to pass?

Required Readings:


October 28: NEW TOWNS IN THE UNITED STATES & ABROAD

Question of the Day: What motivates planners to design new towns?

Required Readings:


October 30:  DESIGNED CAPITALS, NEW CITIES, AND CITY BRANDING

Questions of the Day: *What motivates the creation of new capitals? How are cities marketed? Is it all empty hype or is it possible to create new value for historic places?*

Required Readings:


Optional Reading:

PART IV: CHANGING CITIES BY EXTENDING THEM
Designing Suburbs and Regions

November 4: THE ORIGINS AND GROWTH OF SUBURBS

Questions of the Day: Why do we have suburbs? How and why do the designs of new suburbs differ from the designs of older ones?

Required Readings:


Optional:
Video: Why so many suburbs look the same?

November 6: RETHINKING AMERICAN SUBURBS

Questions of the Day: How do “urbanism” and “suburbanism” differ as “ways of life”? What are the social consequences of sprawl?

Required Readings:


In-class Video: Andres Duany “Suburban Sprawl or Livable Neighborhoods” (excerpt)

November 11: NO CLASS: Veterans Day Holiday

November 13: NEO-TRADITIONALISM, NEW URBANISM & FORM-BASED CODES

Question of the Day: What is the appeal of small town life, and can this be designed?

Required Reading:


DUE: Submit Exercise 3 before class.

ASSIGNED: Final Paper (Topic due November 18; paper due December 6, with possible extension to December 9, by written request to the teaching team)
PART V: CHANGING CITIES BY REDESIGNING THEIR CENTERS

November 18: URBAN RENEWAL AND ITS CRITICS:

Questions of the Day: When does a “neighborhood” become a “slum”? How does one achieve a balance between "renewal" and "preservation"?

Required Readings:


Optional Reading:


“Robert Moses and the Modern City” website, http://www.learn.columbia.edu/moses/

In-class Videos: Urban Renewal

*Exercise 3 Presentations by Selected Groups - 5 Minutes (un-graded).

DUE: Topic of Final Paper
November 20: THE TUMULT OF AMERICAN PUBLIC HOUSING

Question of the Day: *What does urban design have to do with the problems of American public housing?*

Required readings:


Optional Reading:

*Exercise 3 Presentations by Selected Groups - 5 Minutes (un-graded).*

November 25: “SLUMS”: URBAN INFORMALITY AND PLANNING

Question of the Day: *What can urban design and planning do to address the challenges faced by a billion people living informally around the world?*

Required readings:

Mike Davis, “The Urban Climacteric,” in *Planet of Slums*: (Verso, 2006). 1-20


Optional Readings:

*Exercise 3 Presentations by Selected Groups - 5 Minutes (un-graded).*

**PART VI: IMPLEMENTING CHANGE**

Urban Design Futures

**November 27: URBAN DESIGN FUTURES 1: Big Data Urbanism**

Question of the Day: *With pervasive digital systems, what should the city of tomorrow look like?*

Guest Speaker: Prof. Carlo Ratti

Required Reading:
Review: SENSEable City Lab Website: http://senseable.mit.edu


Optional Readings:
December 2: URBAN DESIGN FUTURES 2: Ecological Urbanism

Question of the Day: How can cities best benefit from the natural environment without further harming it?

Guest Speaker:  Prof. Anne Whiston Spirn

Required Reading:


December 4: URBAN DESIGN FUTURES 3: Smart Cities

Question of the Day: How have advances in telecommunications technology changed the way we use and conceive cities?

Guest Speaker:  Prof. Andres Sevtsuk

Required readings:


**DUE: Final paper due by Friday, December 6 (can be extended until December 9 by request)**
December 9: URBAN DESIGN FUTURES 4: Privatization

Question of the Day: Is ‘Public Space’ Being ‘Privatized’?

Required Readings:


In-class Video: Gated Communities

December 12: URBAN DESIGN FUTURES 5: Urban Climate Resilience

Question of the Day: How are planners and designers reshaping cities in response to climate change?

Required readings:


Optional Reading:


**FINAL EXAM**
Date, time, and location to be determined.
MIT final exam schedule: [https://finalexams.mit.edu/#/Finals](https://finalexams.mit.edu/#/Finals)

*Note: There will be a review session prior to this date.*