11.001J/4.250J
Introduction to Urban Design and Development

Fall 2021 | MIT-School of Architecture and Planning | Units: 3-0-9

Mondays and Wednesdays, 11a.m.-12:30p.m. U.S. Eastern

TEACHING TEAM

Prof. Lawrence (Larry) Vale he, him, his, lvale@mit.edu;
Lizzie Yarina she/her/hers (Doctoral Instructor), lizzyey@mit.edu;
Alessandra Fabbri she/her/hers (Doctoral Instructor), afabbri@mit.edu;

1. Description

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, 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.

1.1. Inclusive Classroom

MIT values an inclusive environment. We hope to foster a sense of community in this classroom and consider this classroom to be a place where you will be treated with respect. We welcome individuals of all backgrounds, beliefs, ethnicities, national origins, gender identities, sexual
orientations, religious and political affiliations – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming, and inclusive environment for every other member of the class. If this standard is not being upheld, please feel free to speak with a member of the teaching team.

1.2. Land Acknowledgement Statement

MIT acknowledges Indigenous Peoples as the traditional stewards of the land, and the enduring relationship that exists between them and their traditional territories. The land (and former water) on which the MIT campus sits is the traditional unceded territories of the Wampanoag Nation and the Massachusetts Peoples. We acknowledge the painful history of genocide and forced occupation of their territory, and we honor and respect the many diverse indigenous people connected to this land on which we gather from time immemorial.

In particular, we should all acknowledge that Urban Design and Development never takes place on a tabula rasa. In analyzing how change happens over time, the work for this subject strives to understand the processes of marginalization and to seek ways to implement racial justice practices that can work to improve this.

2. Assessment and Assignments

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 10% on Exercise 1 (Central Square), 10% on Exercise 2 (GIS Mapping), 15% on the take-home timed midterm exam, 25% on Exercise 3 (a group mapping project), 30% of your grade will be based on the quality of your final paper; and 10% on class participation (overall engagement and in-class discussion). For the pandemic-era editions of 11.001 we have eliminated the final exam. All readings and other materials are available on Canvas. It is essential that all readings and pre-class video segments are completed in advance of each class.

3. Written Assignments and Exams

Due Dates

- Exercise #1 (Where is Central Square?): Due (electronically), before midnight, Friday, September 17
- Exercise #2 (Urban Data Analysis and Visualization): Due before class Monday, October 4
- Midterm Exam (Take-home, 90 minutes out of a 24-hour period), Friday, October 22
- Exercise #3 (Urban Form & Use: Big and Small Data): Due before class Wednesday, November 10
- Final Paper: Due by midnight Wednesday, December 8

All work must be submitted through CANVAS. One full letter grade will be deducted per day that an exercise/paper is overdue, unless you have previously explained an unusual circumstance. If you are experiencing a problem that prevents you from completing work, please be in touch with a member of the teaching team.

4. Undergraduate Student Support Services--S^3
If you are dealing with a personal or medical issue that is impacting your ability to attend class, complete work, or take an exam, you should contact a dean in Student Support Services (S3). S3 is here to help you. The deans will verify your situation, provide you with support, and help you work with your professor or instructor to determine next steps. In most circumstances, you will not be excused from coursework without verification from a dean. Please visit the S3 website for contact information and more ways that they can provide support.

Website: https://studentlife.mit.edu/s3

5. Attendance and Contingency Plans for Illness/Absence

11.001 meets in person on Mondays and Wednesdays from 11:00am to 12:30pm EST. This is a synchronous course where we expect students to participate in discussions and share reflections with the teaching team. Students are required to attend all sessions and the teaching team will keep track of attendance. If you are not able to regularly attend the full sessions of this subject, you should not enroll; please let the teaching team know at your earliest convenience if you wish to investigate a possible exception to this expectation. In case of illness or other necessary reason for absence, we have Panopto video recordings of the Spring 2021 version of this subject that can be provided to you to catch up asynchronously if needed.

In the event that we need to pivot to remote delivery delivery of this subject—either because substantial numbers of students or the teaching team needs to quarantine, we have established a Zoom link and linked it to our Canvas site: https://mit.zoom.us/s/99215349002
Note that we will not otherwise regularly be recording our classes during the Fall 2021 semester, unless circumstances change.

6. Writing assistance

The Writing and Communication Center offers free one-on-one professional advice from communication experts with advanced degrees and publishing experience. The WCC can help you further develop your oral communication skills and learn about all types of academic and professional writing. You can learn more about the WCC consultations at http://cmsw.mit.edu/writing-and-communication-center and register with the online scheduler to make appointments through https://mit.mywconline.com. Please note that the WCC hours are offered Monday-Friday, 9:00 a.m.-6:00 p.m., and fill up fast.

Some faculty already require their students to consult with the WCC’s communication experts on their papers, technical reports, and presentations — doing so is a good way not only to improve the quality of their students’ work but also to help students grow as academic writers and communicators.

The WCC has decades of experience preparing thousands of undergraduate and graduate students, as well as postdoctoral scholars and faculty, for positions in research, academia, and industry. We provide expertise in scientific and engineering writing as well as humanities and social science writing across various genres, including journal articles, scientific posters, dissertations, oral presentations, and slide design.

7. Office hours
Larry Vale: my office hours vary from week to week, so please send an email to ljvale@mit.edu and suggest a few possible days/times that work with your schedule. I am expecting to be available either in person or via Zoom, so please indicate your preference.

Lizzie Yarina: My office hours will be on Wednesdays from 3pm – 4pm. You can book office hours with me through the following link: https://calendly.com/lizziy/15min

Alessandra Fabbri: My office hours will be on Monday from 12.45pm to 1.45pm. You can book office hours with me through the following link: https://calendly.com/afabbri

8. Special Accommodations

MIT is committed to the principle of equal access. Students who need disability accommodations are encouraged to speak with Disability and Access Services (DAS), prior to or early in the semester so that accommodation requests can be evaluated and addressed in a timely fashion. If you have a disability and are not planning to use accommodations, it is still recommended that you meet with DAS staff to familiarize yourself with their services and resources. Please visit the DAS website for contact information.

If you have already been approved for accommodations, class staff are ready to assist with implementation. Please inform Professor Vale, and the doctoral instructors (Alessandra and Lizzie) by email who will oversee accommodation implementation for this subject.

9. Academic Integrity

In this subject, we will hold you to the high standard of academic integrity expected of all students at the Institute. I do this for two reasons. First, it is essential to the learning process that you are the one doing the work. We have structured the assignments in this subject to enable you to gain a mastery of the material. Failing to do the work yourself will result in a lesser understanding of the content, and therefore a less meaningful education for you. Second, it is important that there be a level playing field for all students in this class and at the Institute so that the rigor and integrity of the Institute’s educational program are maintained.

Violating the Academic Integrity policy in any way (e.g., plagiarism, unauthorized collaboration, cheating, etc.) will result in official Institute sanction. Possible sanctions include receiving a failing grade on the assignment or exam, being assigned a failing grade in the subject, having a formal notation of disciplinary action placed on your MIT record, suspension from the Institute, and expulsion from the Institute for very serious cases.

Please review MIT’s Academic Integrity policy and related resources (e.g., working under pressure; how to paraphrase, summarize, and quote; etc.) and contact a member of the teaching team if you have any questions about appropriate citation methods, the degree of collaboration that is permitted, or anything else related to the Academic Integrity of this subject.
PART I: CHANGING CITIES: 
Translating Values into Design?

September 8: INTRODUCTION
Questions of the Day: What is Urban Design? What is Urban Development? How are they connected?

**ASSIGNED: Exercise 1, Due before midnight on Friday, September 17.**

Required Readings:
Alex Krieger, “Where and How Does Urban Design Happen?” in Urban Design, ed. Alex Krieger and William S. Saunders (Minneapolis: University of Minnesota Press, 2009): 113-130. (Note: we will refer to this during the first class session, but you can read it afterwards.)

September 13: 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:


Pre-Class Video, “Ways of Seeing the City.” Please watch this in advance of the September 15th class since it contains the first part of the day’s lecture material

September 15: 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

Boston Resilience Plan, Timeline, p.10-13

**September 17:** DUE: Exercise 1 due by electronic submission before midnight. This will give the teaching team some time to review these in advance of class on September 20.

**September 20:** 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?

*Exercise 1 in-class discussion.*

Required Readings:

Pre-Class Video, “Planning the Pre-Industrial American City” Please watch this in advance of the September 20 class since it contains the first part of the day’s lecture material.


Optional Reading:

Video: Where Manhattan’s Grid Came From
https://www.youtube.com/watch?v=QaIOfgz8FVY
September 22: 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?

**ASSIGNED: Exercise 2 (Final Product Due October 4) and Exercise 3 (Final Product Due November 10)**

Required Readings:


Optional Readings:


September 27: INCENTIVE ZONING

Question of the Day: What is the relationship between development incentives and quality public space?
DUE: Team Preferences and Mapping Skills Google Form for Exercise 3

Required Readings:


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

PART II: ELEMENTS OF URBANISM
What Makes A City Look the Way it Does?

September 29: 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:


**October 4: ELEMENTS OF URBANISM 2: STREETS AND SIDEWALKS**

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

**DUE: Submit Exercise 2 Before Class Electronically to Canvas.**

Required Readings:


Optional Reading:

**October 6: 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:

Interview with Walter Hood: https://dirt.asla.org/2020/06/24/interview-with-walter-hood-black-landscapes-matter/


October 11: Indigenous Peoples Day: NO CLASSES

Reading: Review and reflect upon Land Acknowledgment Statement above

October 13: 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 18: ELEMENTS OF URBANISM 5: DATA AND SENSORS

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

Guest Speaker: Prof. Sarah Williams

Required Readings:
PART III: CHANGING CITIES BY DESIGNING NEW ONES

October 20: 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 22 (Friday): Midterm Exam (Take-home exam, 90 minutes out of a 24-hour period);

October 25: NEW TOWNS IN THE UNITED STATES & ABROAD
Question of the Day: What motivates planners to design new towns?

Required Readings:


October 27: DESIGNED CAPITALS
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:

Pre-Class Video, “Designed Capitals.” Please watch this in advance of the October 27 class since it contains the first part of the day’s lecture material.

November 1: NEW CITIES AND CITY BRANDING

Required Readings:


Optional Readings:


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

November 3: 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 8: 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:


Optional Reading:


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

November 10: NEO-TRADITIONALISM, NEW URBANISM & FORM-BASED CODES
Question of the Day: What is the appeal of small-town life, and can this be designed?

DUE: Submit Exercise 3 before class.

ASSIGNED: Final Paper (Topic due November 15)
**paper due by Wednesday, December 8**

Required Reading:


**PART V: CHANGING CITIES BY REDESIGNING THEIR CENTERS**

**November 15: 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"?*

*Exercise 3 Presentations by Selected Groups - 5 Minutes each.*

**DUE: Topic of Final Paper**

Required Readings:


Optional Reading:


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

In-class Videos: Urban Renewal

November 17: THE TUMULT OF AMERICAN PUBLIC HOUSING

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

Exercise 3 Presentations by Selected Groups - 5 Minutes each.

Required readings:

Pre-Class Video, “Public Housing in the United States: Neighborhood Renewal and the Poor.” Please watch this in advance of the November 17 class since it contains the first part of the day’s lecture material.


Optional Reading:
November 22: “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?

Exercise 3 Presentations by Selected Groups - 5 Minutes each.

Required readings:

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


Optional Readings:


PART VI: IMPLEMENTING CHANGE
Urban Design Futures

November 24: 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 and Arianna Salazar
Required Reading:
Review: SENSEable City Lab Website: http://senseable.mit.edu


Optional Readings:

**November 29: 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 [tbc]*

Required Reading:


**December 1: 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:


December 6: URBAN DESIGN FUTURES 4: Privatization
Question of the Day: Is ‘Public Space’ Being ‘Privatized’?

Required Readings:


In-class Videos: Gated Communities

December 8: URBAN DESIGN FUTURES 5: Urban Climate Resilience

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

DUE: Final Paper

Required readings:


Optional Reading:

Lawrence J. Vale “Resilient Cities: Clarifying Concept or Catch-All Cliche?” In The City Reader, 662–672. Routledge, 2015.

Lizzie Yarina, “Your Sea Wall Won't Save You,” Places Journal (March 2018); https://placesjournal.org/article/your-sea-wall-wont-save-you/?cn-reloaded=1