Cities: Focal Point for Sustainability Problems and Solutions
UPPP H30E
Winter 2019

Instructors
Steven Davis - sjdavis@uci.edu
Office: 3232 Croul Hall
Office hours: Tuesdays and Thursdays from 10 to 11 a.m. or by appointment: by appointment: https://calendly.com/sjdavis/15min/

Ajay Garde - ajay.garde@uci.edu
Office: 212B Social Ecology I (SEI)
Office hours: Mondays from 2 to 3 p.m. or by appointment.

Miryha Runnerstrom - miryha@uci.edu
Office: Room 2022, Anteater Instruction & Research Building (AIRB)
Office hours: Virtual through emails, in classroom before and after class, and by appointment at https://calendly.com/runnerstrom/office-hours/. If you don’t see anything that fits with your schedule, let me know and we can try to find another time. I look forward to meeting with you.

Julie Schoenung - julie.schoenung@uci.edu
Office: Room 716B Engineering Tower (ET)
Office hours: By appointment. Please email me.

Time/Place
Tuesdays and Thursdays – 12:30 to 1:50 in Anteater Learning Pavilion (ALP) 2600

Communication
Questions concerning class materials should be posted on the class discussion forum called “Post Your Questions and Comments Here,” so that all students can benefit from reading the answer. Discussion posts are archived and will be available throughout the course.

Please refrain from emailing the instructor with questions about the readings or lessons. These types of questions should be posted to the discussion forum. We will do our best to respond quickly to questions.

When we have a need for communication that is private, whether personal, interpersonal, or professional, we will use individual email or Canvas messaging.

Important class announcements will be made via Canvas. Please ensure that you have read each of these announcements and adjust your Canvas settings so that you receive notifications when announcements are posted.

Course Overview
Cities, and urbanization generally, are increasingly a focal point for environmental, health, and social problems as well as the solutions to problems. In this two-quarter course, cities will similarly provide a focus to explore how the issues raised in earlier courses of the six-quarter Sustainable Societies sequence can be understood in a local context. Using local and global cities as context, the course will
look at the various dimensions of urban design and how design choices contribute to the sustainability of cities and the quality of life of citizens. Specifically, the course will explore the role of urban economies, urban energy and transportation choices, and how urbanization can affect waste and pollution. A theme running through these discussions will be how choices of material – what we use to build buildings or pave roads, but also what we use to maintain the environment or power our devices – can impact health and sustainability. In the second quarter, students will work in small teams to explore a local sustainability issue they have chosen and prepare a product that lays out the issue and the pros/cons of alternative ways to deal with it in an urban context. The intent is that the audience for these projects will be entities outside of the classroom. These capstone projects will provide creative context for dissemination to local stakeholders (e.g., video, webpage, animations, graphics).

This course will be taught by four faculty instructors from different disciplines (Materials Science and Engineering, Julie Schoenung; Earth Systems Sciences, Steve Davis; Public Health, Miryha Runnerstrom; Urban Planning & Public Policy, Ajay Garde) selected and recruited by the Campuswide Honors Program. At least two and, in some cases, three or all four instructors will be present at each class meeting to allow presentations and discussions that reflect a variety of disciplinary viewpoints, model productive disagreement, and illustrate the creative tension that arises when a topic is approached from multiple perspectives.

Organization
This two-quarter course is structured into four distinct modules, two in each quarter. Overlaid across this structure is preparation for and work on large-scale, group projects that will be presented at the end of the second quarter. The focus of each of the four modules is
1. A framework for understanding cities: why they are an important level of social organization, some of the ways that they differ, and some of the choices that lead to those differences;
2. Making cities functional and attractive places to live;
3. The important role of technology in cities; and
4. The sustainability of cities.

Learning Outcomes
Upon completion of this two-course series, students will be able to:
- Explain the importance of cities for modern human society
- Identify important dimensions (e.g., urban design, transportation, equity, waste systems) of variation in the organization of cities
- Explain how choices in these areas affect functionality, livability, and sustainability
- Describe the important role of technology – transportation, communication, access to resources, management of waste, health – for the functionality, livability, and sustainability of cities
- Develop the ability to work with a team to examine a problem faced by a neighborhood/city/region
- Assess the factors underlying the problem faced by a neighborhood/city/region
- Constrain possible solutions – political, economic, design, engineering, environmental, health, equity, etc. – to a problem faced by a neighborhood/city/region and summarize the pros/cons of possible solutions.
### Requirements and Grading Policy

<table>
<thead>
<tr>
<th>Requirement</th>
<th>% of Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attendance</strong> – regular attendance and participation in class. Attendance/participation will be taken using in-class exercises throughout the quarter. Only those in the classroom at the time of the exercises will be considered present, and make-ups will not be possible.</td>
<td>10%</td>
<td>40</td>
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<tr>
<td><strong>Reflection Posts</strong> – weekly critical reflections on the assigned readings</td>
<td>20%</td>
<td>80</td>
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<tr>
<td><strong>In-class Panel Presentations</strong> – student panel will lead an in-class discussion on the assigned readings</td>
<td>20%</td>
<td>80</td>
</tr>
<tr>
<td><strong>Participation Total</strong></td>
<td>50%</td>
<td>200</td>
</tr>
<tr>
<td><strong>End-of-Module Assignments</strong> – students will present to rotating groups. These presentations will be evaluated by their peers, and presenters will submit written responses to these critiques. These assignments will provide preparation for the final presentation in Spring quarter.</td>
<td>40%</td>
<td>160</td>
</tr>
<tr>
<td><strong>Project Proposal</strong> – detailed outline of team’s plan for the final project that will be due at the end of Spring quarter.</td>
<td>10%</td>
<td>40</td>
</tr>
<tr>
<td><strong>Assignments Total</strong></td>
<td>50%</td>
<td>200</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>100%</td>
<td>400</td>
</tr>
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</table>

Grading scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>≥ 100</td>
<td>&gt; 94</td>
</tr>
<tr>
<td>A</td>
<td>≥ 94</td>
<td>&gt; 90</td>
</tr>
<tr>
<td>B+</td>
<td>≥ 87</td>
<td>&gt; 84</td>
</tr>
<tr>
<td>B</td>
<td>≥ 84</td>
<td>&gt; 80</td>
</tr>
<tr>
<td>C+</td>
<td>≥ 77</td>
<td>&gt; 74</td>
</tr>
<tr>
<td>C</td>
<td>≥ 74</td>
<td>&gt; 70</td>
</tr>
<tr>
<td>D+</td>
<td>≥ 67</td>
<td>&gt; 64</td>
</tr>
<tr>
<td>D</td>
<td>≥ 64</td>
<td>&gt; 60</td>
</tr>
<tr>
<td>F</td>
<td>&gt; 60</td>
<td>≤ 100</td>
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</tbody>
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Grades are not based on a curve and will not be rounded. Your grade will be calculated by adding the points that you earn on each assignment.

Your grade will be based on the quality of your answers, as well as on the quality and strength of your writing. We strongly recommend that you use a style manual and make use of [campus writing resources](#) for tips on good writing.

**Please check your grades frequently. The deadline for discussing all grading issues is Friday of Week 10. Please refrain from sending grade inquiries via email. Due to the sensitive nature of grade discussions, these issues will only be discussed in person.**

### Incompletes
Incomplete grades will be assigned only in documented emergencies.

### Academic Integrity
We take academic integrity extremely seriously. The learning environment at the University of California, Irvine is based on honesty and integrity. Sustaining this environment requires that all participants recognize the importance of maintaining the highest ethical standards.

It is critical that all individual student assignments be the sole work of each individual student and that group assignments be a collaborative effort with equal contributions from all group members. Posting lecture notes, lecture recordings, lecture slides, assignments, quiz questions/answers, pages or excerpts
from readings, and/or any material that you receive in this class to note-sharing websites constitutes academic dishonesty.

Material submitted in this class may be passed through turnitin.com, which will check your assignments against published works, content on the Internet, and every other paper submitted to turnitin.com. Please ensure that the work that you submit in this class is your own and that you use your own words when writing your assignments.

Anyone caught cheating or in any other way in violation of the university policy on academic integrity will receive an F in the course. There are no exceptions to this rule, as we have zero-tolerance for all forms of academic dishonesty. We will never look the other way.

Remaining in the course assumes that you understand what academic integrity is, in all its varied forms, and pledge not to engage in any type of dishonest conduct (which includes, but is not limited to cheating, plagiarism, and dishonest conduct). You, the student, are required to know and understand the relevant policies regarding academic integrity. To this end, you are required to carefully read the information found by following the link below. Additionally, all participants in the course are also bound by the University of California Code of Conduct. The relevant link is also below.

UCI’s Academic Senate Policy on Academic Integrity

The University of California Code of Conduct

Due Dates
Assignments are due by the deadline on the specified date (see Canvas for details). Late assignments will not be accepted for points.

Readings
A list of readings for each week is available in the Course Schedule section of the syllabus. The most up to date and detailed list of the readings is available via Canvas (navigate to Canvas > Syllabus and click on the Readings page link).

Why bother to do the readings?

The assigned readings complement the class lecture. In other words:

Lecture + Assigned Readings = Complete Picture

When reading the required text book for this class, we recommend that you think about how the concepts that you are reading about apply to this class as a whole, to the assignments, and to other real-world situations. In particular, please consider how what you are reading might relate to cities and sustainability.

How to read for this class?
Reading the required selections isn’t meant to be an exercise in memorization. Instead, please focus your reading efforts on understanding the key concepts and applying these concepts to the class material. If you are unfamiliar with this active type of reading, you can take a look at the helpful tips here: http://www.cornellcollege.edu/academic-support-and-advising/study-tips/reading-textbooks.shtml
There is one **required** book for this class:


Additional required readings as noted below are available in Canvas.

**Winter Quarter**

**Themes for First Module (Weeks 1 through 5)**

- Overview: What are cities and why are they important?
- Frameworks for understanding cities

**Week 1 (1/8, 1/10)**

- Introduction to the course
- How are cities defined?

**Assignments**

- Week 1 Reflection Post due

**Readings**

- Glaeser – Introduction and Chapter 1

**Week 2 (1/15, 1/17)**

- The pros and cons of density (e.g., density that is planned vs. organic, etc.), scale, sprawl
- Importance of the city political unit across levels of analysis – regional to neighborhood

**Assignments**

- Week 2 Reflection Post due

**Readings**

- Glaeser – Chapter 7

**Week 3 (1/22, 1/24)**

- Urban economies
- Prosperity and creativity

**Assignments**

- Week 3 Reflection Post due
In-class Panel Presentations

Readings
- Glaeser – Chapters 5, 9

**Week 4 (1/29, 1/31)**
- Human Health Risk Assessment in the context of chemicals management in society
- “Tieboutian Spaces” as a framework for viewing problems in cities (e.g., homelessness, access to services)

Assignments
- Week 4 Reflection Post due
- In-class Panel Presentations

Readings
- Glaeser – Chapter 3

**Week 5 (2/5, 2/7)**
- Guest speaker Diran Apelian on 2/5

Assignments
- End of Module Assignment: Spotlight on a city + in-class activity/presentations

Readings
TBD

**Themes for Second Module (Weeks 6 through 10)**
- Making Cities Functional and Attractive
- Context from International Cities

**Week 6 (2/12, 2/14)**
- Urban design (walkability, aesthetics)
- LEED-ND and the visual dimension
- Biophilia in urban design
Assignments
- Week 6 Reflection Post due

Readings (and podcasts)
- Glaeser – Chapter 6
- https://99percentinvisible.org/article/unitedhabitation-le-corbusiers/proto-brutalism/ (read the article only, podcast is the same as previous)

**Week 7 (2/19, 2/21)**
- Risk/hazards in urban design decisions, application to problem
- Urban design and public health
- Healthy Building Network Speaker Tom Lent on 2/21

Assignments
- Week 7 Reflection Post due

Readings
- Glaeser – Chapter 2

**Week 8 (2/26, 2/28)**
- Health and Equity, Environmental Justice

Assignments
- In-class Panel Presentations
- Week 8 Reflection Post due

Readings
- Selected sections from WHO Healthy Cities report
- Glaeser – Chapter 4

**Week 9 (3/5, 3/7)**
- Social capital
- What’s wrong with plastic trees?
- Access to nature: Scales ranging from community gardens to urban parks
- Guest speaker Ted Wright on psychological benefits of green space
Assignments
- Week 9 Reflection Post due
- In-class Panel Presentations

Readings
- Glaeser – Chapter 8

Week 10 (3/12, 3/14)
Assignments
- End of Module Assignment: Spotlight on a city + in-class activity/presentations

Finals Week (begins 3/15 after 5 p.m.)
Assignments
- Project Proposal due