

# School of Architecture University of Southern California

**ARCH 546 : Topics in Practice : Spatial Issues in Open Space and Public Health**  
2 units

Meeting Time Tuesday 1pm – 2:50 pm  
Location: Watt Hall 212

Instructor: Esther Margulies  
Associate Professor in Practice  
Landscape Architecture + Urbanism  
339 Watt Hall



The Guardian 2014

**Description:**

Open Space resources in cities like Los Angeles can be more effectively planned and designed to respond to climate change and public health issues like asthma, obesity, violent crime, water contamination and nature deficit disorder. Little research has been done to explore the spatial characteristics of pollution impacts. The intersection of public health research and open space design can help populations to avoid or counteract impacts from air pollution, ground water pollution or violent crime in urban areas. Students will research topics of public health related to land use and open space to understand the sources of health risks and their spatial characteristics. Topics will include: air pollution, water pollution, soil pollution, lack of open space, nature deficits, isolation and

monotony, temperature rise, drought and childhood diseases. The class will meet with public health and environmental health faculty and researchers at the USC Keck School of Medicine. The course will include research on public health topics and their spatial characteristics, site visits to better understand the sites where health risks are present and the development of proposals to consider current and future land uses and design. Students will apply their research to selected sites analyzing issues of equity, disease and long term health costs, and then develop conceptual guidelines to inform future policy development and site design.

### **Learning Objectives:**

Students will research public health topics from design and preventative health perspectives to develop data based understandings of pollution and climate change issues in urban areas. Using GIS and analysis mapping students will develop communication skills in describing the spatial aspects of public health challenges. Students will translate their findings into site specific design guidelines to establish a position and argument for the consideration of land uses and site design to mitigate climate change and pollution impacts on human health. A final paper will summarize research and proposals developed throughout the course.

### **Requirements:**

Students will need to use Arc GIS, Adobe Suite programs and other appropriate software to communicate data and design guidelines. Students will submit reading responses to weekly reading assignments.

### **Preliminary Structure /Schedule**

- Week 1 Intro and General Discussion of health risks
- Week 2 Research on topics related to public health and site design
- Week 3 Meetings with Keck Faculty on research topics
- Week 4 Site Visit to Impact site
- Week 5 Lecture on Land Use policies as public health design tactics
- Week 6 Lecture on Site Design as tactical tools
- Week 7 Site Visit and Analysis of Impact Site/s
- Week 8 Development of Data related to spatial impacts of public health issues
- Week 9 Mid Term presentation of Data related to spatial impacts of public health issues
- Week 10 Lecture on Climate Change issues on public health
- Week 11 Research on healthy communities
- Week 12 Development of tactics related to specific sites
- Week 13 Internal review of tactical proposals
- Week 14 Final Presentation of proposals
- Week 15 Final papers due summarizing semester research

### **Grading and Student Evaluation**

1. Class attendance and participation in class discussions, more than two “unexcused” classes (as defined

- by USC guidelines) will result in a grade penalty. 10%
2. Reading Responses 20%
  3. Mid Term Research Assignments 30%
  4. Final Research Paper 30 %

### General Grading Scale

Course final grades will be determined using the following scale

A	95-100
A-	90-94
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	59 and below

### Preliminary Bibliography

See documents on Google Drive and as developed by students

<https://www.healthlandscape.org/Programs.cfm>

<https://www.rwjf.org/en/our-focus-areas/topics/built-environment-and-health.html>

<https://www.thecommunityguide.org/findings/physical-activity-built-environment-approaches>

Barton, H. (2017). City of Well-Being : A Radical Guide To Planning (First published.. ed.).

Bostrom, HE, et al Provide New Data on Preventive Medicine. (2017). Health & Medicine Week, 9804.

Corburn, J. (2009). Toward the healthy city : People, Places, And The Politics Of Urban Planning (Urban and industrial environments). Cambridge, Mass.: MIT Press.

Elizabeth C.Delmelle<sup>a</sup>EvaHaslauer<sup>b</sup>ThomasPrinz<sup>c</sup>, Social Satisfaction, Commuting And Neighborhoods, Journal of Transport Geography, vol. 30, June 2013, pp. 110 – 116

Fitzpatrick, & La Gory. (2011). Unhealthy cities : Poverty, Race, And Place In America (2nd ed.). New York: Routledge.

Paulson, Suzanne, Effectiveness of Sound Wall Vegetation Combination Barriers as Near Roadway Pollutant Mitigation Strategies, UCLA, May 2017

James F Sallis, Fiona Bull, Ricky Burdett, Lawrence D Frank, Peter Griffiths, Billie Giles-Corti, Mark Stevenson, Use of science to guide city planning policy and practice: how to achieve healthy and sustainable future cities, The Lancet, Volume 388, Issue 10062, 2016, pp. 2936-2947

E.Sharifi J.Boland, Heat Resilience in Public Space and Its Applications in Healthy and Low Carbon Cities, *Procedia Engineering*, Vol 180, 2017, pp. 944 – 954

Ward Thompson, Aspinall, Bell, Aspinall, Peter, & Bell, Simon. (2010). *Innovative Approaches To Researching Landscape And Health : Open space, people space 2*. London ; New York: Routledge.

William B.WeeksMD, PhD, MBA<sup>ab</sup>James N.WeinsteinDO, MS<sup>abc</sup>, Per-Capita Medicare Expenditures, Primary Care Access, Mortality Rates, and the Least Healthy Cities in America, *The American Journal of Medicine*, Vol 130, Issue 1, Jan 2017.

### **Academic Conduct:**

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, “Behavior Violating University Standards” [policy.usc.edu/scampus-part-b](http://policy.usc.edu/scampus-part-b). Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct>.

### **Support Systems:**

*Student Counseling Services (SCS) – (213) 740-7711 – 24/7 on call*

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. [engemannshc.usc.edu/counseling](http://engemannshc.usc.edu/counseling)

*National Suicide Prevention Lifeline – 1 (800) 273-8255*

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. [www.suicidepreventionlifeline.org](http://www.suicidepreventionlifeline.org)

*Relationship and Sexual Violence Prevention Services (RSVP) – (213) 740-4900 – 24/7 on call*

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. [engemannshc.usc.edu/rsvp](http://engemannshc.usc.edu/rsvp)

*Sexual Assault Resource Center*

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: [sarc.usc.edu](http://sarc.usc.edu)

*Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086*

Works with faculty, staff, visitors, applicants, and students around issues of protected class. [equity.usc.edu](http://equity.usc.edu)

*Bias Assessment Response and Support*

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. [studentaffairs.usc.edu/bias-assessment-response-support](http://studentaffairs.usc.edu/bias-assessment-response-support)

*The Office of Disability Services and Programs*

Provides certification for students with disabilities and helps arrange relevant accommodations. [dsp.usc.edu](http://dsp.usc.edu)

*Student Support and Advocacy – (213) 821-4710*

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. [studentaffairs.usc.edu/ssa](http://studentaffairs.usc.edu/ssa)

*Diversity at USC*

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. [diversity.usc.edu](http://diversity.usc.edu)

*USC Emergency Information*

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible. [emergency.usc.edu](http://emergency.usc.edu)

*USC Department of Public Safety – UPC: (213) 740-4321 – HSC: (323) 442-1000 – 24-hour emergency or to report a crime.*

Provides overall safety to USC community. [dps.usc.edu](http://dps.usc.edu)