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

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.thecommunityguide.org/findings/physical-activity-built-environment-approaches


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


William B. Weeks MD, PhD, MBA, James N. Weinstein DO, MS, 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. 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

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

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

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

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

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

The Office of Disability Services and Programs
Provides certification for students with disabilities and helps arrange relevant accommodations. 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

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

**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

**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