ENV H 538 A Wi 22: Public Health And The Built Environment

Winter Quarter 2022

EnvH 538: Public Health and Built Environment

Dept. of Environmental and Occupational Health Sciences, UW School of Public Health

UrbDP 538: Public Health and Built Environment

Dept. of Urban Design and Planning, UW College of Built Environments

***EnvH 538 and UrbDP 538 are taught concurrently***

Instructor

Andrew L. Dannenberg, MD, MPH

Affiliate Professor, Dept. of Environmental and Occupational Health Sciences, UW School of Public Health, and Dept. of Urban Design and Planning, UW College of Built Environments

Former Team Lead, Healthy Community Design Initiative, National Center for Environmental Health, Centers for Disease Control and Prevention

Email: adannen@uw.edu

Phone: 404-272-3978 (cell)

Office hours by appointment

Class sessions: Thursdays, 5:00pm – 6:50pm, January 6 to March 10, 2021

Location:

Weeks 1 through 4 (Thursday January 6, 13, 20, and 27) will be held remotely on Zoom: https://washington.zoom.us/j/91463679358

One tap mobile: +12063379723,,91463679358#

Subsequent sessions are expected to be held in person on campus in ECE Room 125 (https://www.washington.edu/classroom/ECE).

Note: The Zoom link is set up for the full quarter but will only be used for the first four classes, unless UW guidance on in-person classes changes.

Course Description

This interdisciplinary course focuses on the increasing recognition that the design of communities and of buildings can impact human health, especially among disadvantaged populations. Community designs that feature parks, sidewalks, trails, public transit, access to healthy food, and connectivity among destinations can promote equity, encourage physical activity, help prevent obesity and its associated health consequences, and reduce dependence on automobiles whose use contributes to air pollution, motor vehicle crashes, and pedestrian injuries. Increased attention to the health implications of the built environment has led to various innovative solutions, such as mixed-use Smart Growth developments, investments in bicycling and pedestrian infrastructure, incentives to reduce gentrification, and the use of health impact assessments to convey health information to community decision-makers. The impacts on the built environment of climate change and of the COVID-19 pandemic will also be explored.
Course Learning Objectives

At the conclusion of the course, students should be able to:

- Explain how the design of the built environment impacts public health both positively and negatively
- Critique the literature regarding health and built environment including its strengths and weaknesses
- Describe the methods used to assess the built environment and its impact on health and equity
- Describe the options available to promote healthy community design decisions
- Describe the implications of climate change and of the COVID-19 pandemic on the built environment
- Summarize the benefits of and barriers to working in an interdisciplinary environment

Student Evaluation

- Class participation 15%
- Written reflections on readings 30%
- Street and park audit 20%
- 3-5 page paper on research topic 20%
- Two-minute oral testimony 15%

Access and Accommodations: Your experience in this class is important to me. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law. If you have already established accommodations with Disability Resources for Students (DRS), please activate your accommodations via myDRS so we can discuss how they will be implemented in this course. If you have not yet established services through DRS but have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), contact DRS directly to set up an Access Plan. DRS facilitates the interactive process that establishes reasonable accommodations. Contact DRS at disability.uw.edu (http://depts.washington.edu/uwdrs/).

Academic Integrity: Students at the University of Washington are expected to maintain the highest standards of academic conduct, professional honesty, and personal integrity. UW is committed to upholding standards of academic integrity consistent with the academic and professional communities of which it is a part. Plagiarism, cheating, and other misconduct are serious violations of the UW Student Conduct Code (WAC 478-120). We expect you to know and follow the university's policies on cheating and plagiarism, and the SPH Academic Integrity Policy (http://sph.washington.edu/students/academicintegrity/). Any suspected cases of academic misconduct will be handled according to UW regulations. For more information, see the UW Community Standards and Student Conduct website (http://www.washington.edu/cssc/).

Religious Accommodations: Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW’s policy, including more information about how to request an accommodation, is available at Religious Accommodations Policy (https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/). Accommodations must be requested within the first two weeks of this course using the form at https://registrar.washington.edu/students/religious-accommodations-request/.

Class Schedule and Required Readings

https://canvas.uw.edu/courses/1515833
All readings are provided on Canvas Share Space (https://canvas.uw.edu/) under “Files”.

Textbook (purchase not necessary):


Because the Second Edition of *Making Healthy Places* (abbreviated MHP) will not be available until May 2022, we are providing PDFs of the page proofs of the book chapters on Canvas as readings for this year’s class. Details about the book are available at www.makinghealthyplaces.com (http://www.makinghealthyplaces.com).

**January 6:** Introduction to course; overview of public health and the built environment; Andrew Dannenberg, MD, MPH

- MHP Preface
- MHP Chapter 1. Introduction to healthy, equitable, and sustainable places

**January 13:** Physical activity; injury. Steve Mooney, PhD, Assistant Professor, UW Dept. of Epidemiology, Harborview Injury Prevention and Research Center, sjm2186@uw.edu (mailto:sjm2186@uw.edu)

- MHP Chapter 2. Physical activity and the built environment
- MHP Chapter 5. Injuries, violence and the built environment

**January 20**

1. Transportation and land use. Mark Hallenbeck, MS, Director, Washington State Transportation Center; tracmark@uw.edu (mailto:tracmark@uw.edu)

2. Behavioral choices
• MHP Chapter 11. Transportation, land use, and health
• MHP Chapter 19. Healthy behavioral choices and the built environment
• Whitehurst DGT, DeVries DN, Fuller D, Winters M. An economic analysis of the health-related benefits associated with bicycle infrastructure investment in three Canadian cities. *PLoS ONE* 2021; 16(2): e0246419. [https://doi.org/10.1371/journal.pone.0246419](https://doi.org/10.1371/journal.pone.0246419)


January 27

**READING REFLECTIONS FOR WEEKS 1 TO 4 DUE by 5:00pm**

**NAME OF PARK AUDIT PARTNER DUE by 5:00pm**

1. **Green architecture, healthy buildings. Heather Burpee, M Arch**, Research Associate Professor, UW Department of Architecture; Integrated Design Lab; [burpeeh@uw.edu](mailto:burpeeh@uw.edu)
2. **Healthy workplaces, health care settings, and schools; COVID and the built environment**

• MHP Chapter 13. Healthy workplaces
• MHP Chapter 14. Healthy healthcare settings
• MHP Chapter 15. Healthy schools
• MHP Chapter 26. COVID and the built environment: lessons learned

February 3

**PARK AND STREET AUDIT DUE by 5:00pm**

1. **Balancing health, equity, and development decisions in planning. Gene Duvernoy, JD, MBA**, President and CEO Emeritus, Forterra, [euge@forterra.org](mailto:euge@forterra.org)
2. **Food, water, and air quality and the built environment**
3. **Discussion of park and street audit**

• MHP Chapter 3. Food, nutrition, and community design
• MHP Chapter 4. The built environment and air quality
• MHP Chapter 6. Water, health, and the built environment
February 10

1. **Climate change, resiliency, disasters.** Jeremy Hess, MD, MPH, Professor, Dept. of Emergency Medicine, UW School of Medicine, and Dept. of Environmental and Occupational Health Sciences, UW School of Public Health, jjhess@uw.edu

2. **Using metrics in the built environment.** In-class exercise. Arthur Wendel, MD, MPH, Medical Officer, Agency for Toxic Substances and Disease Registry, HHS Region 10, Division of Community Health Investigations, Seattle, arthur@epa.gov

- MHP Chapter 17. Climate change, cities, and health
- MHP Chapter 18. Community resilience and healthy places
- MHP Chapter 22. Measuring, assessing, and certifying healthy places

February 17

**RESEARCH PROJECT PAPERS DUE by 5:00pm**

1. **Gentrification and displacement.** Donald King, FAIA/NOMA, Affiliate Professor, Dept. of Architecture, University of Washington, dik49@uw.edu

2. **Healthy homes**

   1. Discussion of two TED talks to be shown in class:
      - Jason Roberts, community activist in Oak Cliff TX, [https://youtu.be/ntwqVDzdqAU](https://youtu.be/ntwqVDzdqAU)
      - Ron Finley, guerrilla gardener in Los Angeles, [https://www.youtube.com/watch?v=ExZzZ_qpZ4w](https://www.youtube.com/watch?v=ExZzZ_qpZ4w)

- MHP Chapter 9. Inequity, gentrification, and urban health
- MHP Chapter 12. Healthy homes
February 24

1. Contact with nature; perspectives on health and the built environment. Howard Frumkin, MD, DrPH, Senior Vice President, Trust for Public Land, and Professor Emeritus, Environmental and Occupational Health Sciences, UW School of Public Health

2. Mental health and social capital

3. Discussion of research paper assignment

March 3

1. Jobs in healthy community design. Richard Gelb, MES, Environmental Planner, Public Health - Seattle & King County, Gelb@kingcounty.gov; Keri Moore, MPH, Healthy Communities Specialist, Snohomish Health District, kmoore@snohd.org; Megan Moore, MPH, Healthy Communities Specialist, Kitsap Public Health, megan.moore@kitsappublichealth.org; Cailin Henley, MPH, Safe Routes to School Coordinator, City of Tacoma, cailin.henley@gmail.com

2. Policy and legislation

3. Community engagement

March 10:
READING REFLECTIONS FOR WEEKS 5 TO 10 DUE by 5:00pm

1. Student presentations in class: Two-minute testimony
2. Innovative technologies; future built environments

- MHP Chapter 24. Innovative technologies for healthy places
- MHP Chapter 27. Healthy, equitable, and sustainable built environments for the future

Optional course readings

- MHP Chapter 10. Healthy places across the lifespan
- MHP Chapter 23. Training the next generation of healthy placemakers (includes discussion of job opportunities in the field)
- MHP Chapter 25. Healthy places research: emerging opportunities
- MHP Glossary

Class discussions of readings

All assigned readings should be completed prior to class. We plan to allow time for discussion of the readings in the second hour of our class sessions. For the MHP book chapters, there are Discussion Questions available online at http://makinghealthyplaces.com/wp-content/uploads/2011/08/Discussion-Questions.pdf that we may discuss as time permits.

Class activities/requirements

Reading Reflections: DUE DATES: January 27 and March 10

For each of the assigned readings each week (chapters and articles), write one paragraph (typically ¼ to ½ page long, single spaced) responding to the following questions: “Considering the focus of the class on health and built environment issues,
• Should the reading be used in this course next year, using scale of 1 (definitely delete) to 5 (definitely keep)?
• What information in the reading was new to you?
• How does the information in the reading relate to your background and interests?
• How might the information in the reading be useful to you in your future work?*

Deliverables: Set of reading reflections accumulated into a file (Part 1 and Part 2) uploaded to Canvas. Within each set of reading reflections, use MHP chapter number and title or article author and title as subheadings to clearly identify the reading to which the reflection belongs.

DUE January 27: Reflections Part 1 covering weeks 1 to 4 of readings
DUE March 10: Reflections Part 2 covering weeks 5 to 10 of readings

Field exercise: Park and Street Audit  DUE DATE: February 3

1. Review combined park and street audit tool posted on Canvas.
2. Provide instructor with student names in working pairs no later than January 27.
3. Work in pairs with a classmate from another college or school (such as CBE and SPH) to conduct an audit of one local park and an adjacent street that leads to the park. Wear masks and keep appropriate social distancing with your partner.
4. Deliverables to be uploaded in a single file to Canvas, clearly labeled to indicate who worked in your group:
   1. Map of park and adjacent street with key features noted. The map can be from the web, or hand-drawn, or a photo of a map found in the park.
   2. Completed audit tool for that park and street, including recommendations for how that park and street could be improved.
   3. Up to 10 digital photographs highlighting important features – please use low resolution photos. Include brief captions with each photograph.

Research project paper:  DUE DATE: February 17

1. Review research methods and topics listed in Making Healthy Places Chapter 25. Healthy places research: emerging opportunities
2. Select a topic of interest from this chapter. Write a 3-5 page single-spaced paper first describing briefly why the topic is important, and then describing in more detail how you would design a research project to add to our knowledge about this topic. Paper should include:
   • Proposed study design
   • Types of skills research team would need
   • Characteristics of a study population (and of comparison group if needed)
   • Data sources
   • Methods such as surveys, informant interviews, use of existing datasets
   • Types of analyses
   • Ethics concerns (if any); need for human subjects approval
   • Types of results that might be found in such a study
   • Possible implications of such results.

   Deliverable:  3-5 page single spaced paper uploaded to Canvas.

Two-minute testimony:  DUE DATE: March 10

1. Pick a current topic related to a proposed change in the built environment (locally or elsewhere) that has health implications.
2. Prepare a two-minute oral testimony that might be delivered to a city council, legislature, zoning board, or other decision-making group conveying the health concerns about the project and how it might be improved to promote health or mitigate adverse health impacts.
Deliverable: Upload the topic of your testimony to Canvas (one sentence or less) and give a timed 2-minute oral presentation during March 10 class. Do not submit a written version of what you present to the class.

The topic you pick may be a real or fictional and may be from Seattle or your hometown or elsewhere. You may find a topic in the local newspaper. The proposed project may be favorable to health that you want to support or could be harmful for health that you want to discourage. Your task is to convey to the decision-makers in 2 minutes the impact of the proposal on health and urge them to consider health as part of their decision. Feel free to be creative on your topic. Some examples of possible topics –

- A Stay Healthy Streets bill to permanently designate 100 miles of local streets for use by pedestrians and bicyclists while banning through traffic
- A bill to close three nearby community schools and build one large new school on inexpensive land farther from the students it serves
- A bond issue to provide more funding for new parks and for maintaining existing parks
- A bill to build a new sports stadium and demolish homes of 1000 low-income persons
- A bill requiring 10% of city transportation funds be used to improve bicycle and pedestrian infrastructure
- A proposal to allow e-scooters on all roads, trails, and sidewalks in the city
- A bill to set aside land for more community gardens (P patches) in the city
- A proposal to allow apodments (tiny apartments) to be built in Capitol Hill

The format of your 2 minute testimony should be as follows:

- First introduce yourself: “I am [your real name] representing XYZ organization (real or fictional) or speaking as a public health professional or as a concerned citizen”
- State that the location today is Seattle City Council or wherever
- State that the topic today is the proposed bill to do …… (one sentence maximum)
- State succinctly how the proposed bill affects health and the built environment
- Mention and respond to arguments made by those who disagree with your position
- Conclude with how you are urging the decision-maker to vote or to improve the proposal

Course Summary:

<table>
<thead>
<tr>
<th>Date</th>
<th>Details</th>
<th>Due</th>
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| Thu Jan 6, 2022 | <EnvH/UrbDP 538: Health and Built Environment class>  
(https://canvas.uw.edu/calendar?event_id=2535843&include_contexts=course_1515833) | 5pm to 7pm   |
| Thu Jan 13, 2022 | <EnvH/UrbDP 538: Health and Built Environment class>  
(https://canvas.uw.edu/calendar?event_id=2535844&include_contexts=course_1515833) | 5pm to 7pm   |
| Thu Jan 20, 2022 | <EnvH/UrbDP 538: Health and Built Environment class>  
(https://canvas.uw.edu/calendar?event_id=2535845&include_contexts=course_1515833) | 5pm to 7pm   |
| Thu Jan 27, 2022 | <EnvH/UrbDP 538: Health and Built Environment class>  
(https://canvas.uw.edu/calendar?event_id=2535846&include_contexts=course_1515833) | 5pm to 7pm   |
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<tr>
<td>Thu Feb 3, 2022</td>
<td><strong>Reading reflections, Part 1, Weeks 1-4</strong> (<a href="https://canvas.uw.edu/courses/1515833/assignments/7036264">https://canvas.uw.edu/courses/1515833/assignments/7036264</a>)</td>
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<td><strong>Revised Park and Street Audit</strong> (revised 1/28/2022) (<a href="https://canvas.uw.edu/courses/1515833/assignments/7089754">https://canvas.uw.edu/courses/1515833/assignments/7089754</a>)</td>
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<td><strong>Research project paper</strong> (<a href="https://canvas.uw.edu/courses/1515833/assignments/7036335">https://canvas.uw.edu/courses/1515833/assignments/7036335</a>)</td>
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<td>Thu Feb 24, 2022</td>
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<td>Thu Mar 3, 2022</td>
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