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***

Instructors

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Office hours: Thursdays, 1:00pm – 2:00pm, Gould Hall, Room 418

Class sessions: Thursdays, 5:00pm – 6:50pm, January 4 to March 7, 2024
Credits & Grading: 2 credits, graded
Location: UW Gould Hall, Room 322, https://www.washington.edu/classroom/GLD

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, affordable housing, 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 pedestrian and bicycling infrastructure, incentives to reduce gentrification and displacement, 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 Outcomes

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

- Explain how the design of the built environment impacts public health and equity both positively and negatively
- Critique the literature regarding public 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

https://canvas.uw.edu/courses/1696505
- 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%
- Park and street audit 20%
- 3 to 5 page paper on research topic 20%
- Two-minute oral testimony 15%

Access and Accommodations: Your experience in this class is important to us. 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 (UW) 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, unauthorized use of artificial intelligence (AI) tools, and other misconduct are serious violations of the University of Washington Student Conduct Code (https://apps.leg.wa.gov/WAC/default.aspx?cite=478-121) (WAC 478-121). We expect you to know and follow the university’s policies on cheating and plagiarism, and the SPH Academic Integrity Policy. Any suspected cases of academic misconduct will be handled according to University of Washington regulations. For more information, see the University of Washington Community Standards and Student Conduct (https://www.washington.edu/cssc/).

Use of Artificial Intelligence (AI) Tools for Course Assignments: Certain assignments in this course offer you an option to use AI tools for specific purposes and with directions that include explicit disclosure of how you used AI tools. On those assignments, you may choose to use AI tools as directed, or you may choose to not use AI tools. On all other assignments, you are not permitted to submit any work that is created, completely or partially, by AI tools.

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 Religious Accommodations Request form (https://registrar.washington.edu/students/religious-accommodations-request/).

Required Readings
- All course readings except textbook chapters are provided on Canvas Share Space (https://canvas.uw.edu/) under “Files” à “Course Readings”. It may be faster to obtain the readings from Canvas than from article URLs due to some URL paywall barriers.

Class schedule

January 4
1. Introduction to course
2. 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 11

1. Transportation and land use. Mark Hallenbeck, MS, Director Emeritus, Washington State Transportation Center, tracmark@uw.edu

2. Behavioral choices and the built environment
   - MHP Chapter 11. Transportation, land use, and health
   - MHP Chapter 19. Healthy behavioral choices and the built environment

January 18

1. Using metrics in the built environment. Arthur Wendel, MD, MPH, Medical Officer, Environmental Medicine and Health Systems Intervention Section, Office of Capacity Development and Applied Prevention Science, Agency for Toxic Substances and Disease Registry, Seattle, arthurwendel@gmail.com
2. Discussion of TED talk shown in class: Jason Roberts, community activist in Oak Cliff, Texas, [https://youtu.be/ntwqVDzdqAU](https://youtu.be/ntwqVDzdqAU)

January 25

READING REFLECTIONS FOR WEEKS 1 TO 4 DUE by 5:00pm
NAME OF PARK AUDIT PARTNER DUE by 5:00pm (send email to Dr. Karen Chen at kthchen@uw.edu)

Gentrification and displacement. Donald King, FAIA/NOMA, Affiliate Professor, Dept. of Architecture, University of Washington, donald@mimarpacific.com

1. Redevelopment of Yesler Terrace. Terry Galiney, Director of Development, Seattle Housing Authority, galiney@seattlehousing.org
2. Healthy homes

   - MHP Chapter 9. Inequity, gentrification, and urban health
   - MHP Chapter 12. Healthy homes
February 1

PARK AND STREET AUDIT 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 | Marissa Rainbolt, MPH, Health Scientist/Project Manager, 9 Foundations, rainbolt@9foundations.com

2. Healthy workplaces, healthcare settings, and schools

3. Discussion of park audit and research paper assignments

February 8

1. Data science and designing healthy places. Tzu-Hsin Karen Chen, PhD

2. Mental health and social capital

3. Contact with nature

MHP Chapter 7. Built environments, mental health, and well-being

February 15

RESEARCH PROJECT PAPERS DUE by 5:00pm

1. Physical activity; injury. Steve Mooney, PhD, Assistant Professor, UW Dept. of Epidemiology, Harborview Injury Prevention and Research Center, sjm2186@uw.edu

2. Discussion of TED talk shown in class: Ron Finley, guerrilla gardener in Los Angeles, https://www.youtube.com/watch?v=EzZzZ_opZ4w


February 22

1. Jobs in healthy community design. Richard Gelb, MES, Environmental Planner, Public Health - Seattle & King County, Gelb@kingcounty.gov; Cailin Henley, MPH, Safe Routes to School Coordinator, City of Tacoma, CHenley@cityoftacoma.org; Erin Dilworth, MS, Healthy Community Planner, Social, Economic and Environmental Conditions for Health, Tacoma Pierce County Health Department, edilworth@tpchd.org; Jessica Marcinkevage, PhD, MSPH, Epidemiologist, Washington State Department of Health, jessica.marcinkevage@doh.wa.gov

2. Healthy places across life span, policy and legislation, community engagement

- MHP Chapter 10. Healthy places across the life span
- MHP Chapter 20. Legislation, policy, and governance for healthy places
- MHP Chapter 21. Community engagement for health, equity, and sustainability


February 29

1. Food and the built environment. Jennifer Otten, MS, PhD, Associate Professor, Dept. of Environmental & Occupational Health Sciences and UW Center for Public Health Nutrition, jotten@uw.edu

2. Climate change and community resilience. Helen Pineo, PhD, Research Associate Professor, Dept. of Environmental and Occupational Health Sciences and Dept. of Urban Design and Planning, hspineo@uw.edu

- MHP Chapter 3. Food, nutrition, and community design
- MHP Chapter 17. Climate change, cities, and health
- MHP Chapter 18. Community resilience and healthy places


March 7

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

1. Student presentations in class: Two-minute testimony

2. Innovative technologies; COVID and the built environment; future built environments

- MHP Chapter 24. Innovative technologies for healthy places
- MHP Chapter 26. COVID and the built environment: lessons learned
- MHP Chapter 27. Healthy, equitable, and sustainable built environments for the future


Optional course readings

- 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 at the end of each chapter that we may discuss as time permits.

- Class activities/requirements

Reading Reflections: **DUE DATES: January 25 and March 7**

You may not use AI tools for this assignment.

**Guidance:** You are expected to read each of the assigned required readings. However, you may choose to spend different amounts of time with different readings and to not read every word of each reading. You may choose to spend more time on readings that you find most interesting, or from which you may learn the most new content, or that are most closely related to your past experiences or future work, and you may choose to spend less time on readings of less relevance to your interests. You may be surprised to find that some topics are more interesting or relevant than you initially expected.

For each of the five 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,

1. Should the reading be used in this course next year, using scale of 1 (definitely delete) to 5 (definitely keep)? Put this score on a line by itself, not in the text of the reflection.
2. What information in the reading was new to you?
3. How does the information in the reading relate to your background and interests?
4. 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 25:** Reflections Part 1 covering weeks 1 to 4 of readings

**DUE March 7:** Reflections Part 2 covering weeks 5 to 10 of readings

Field exercise: Park and Street Audit **DUE DATE: February 1**

You may not use AI tools for this assignment.

1. Review combined park and street audit tool posted on Canvas under "Files".
2. Email Dr. Karen Chen (kthchen@uw.edu) with student names in working pairs no later than January 25.
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.
4. Deliverables to be uploaded in a single PDF file to Canvas, clearly labeled to indicate who worked in your pair:
   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 15**
Two options:
1. Write paper in usual manner without AI assistance, OR
2. Write paper with AI assistance and follow the guidance below.

Review research topics and methods listed in:
- *Making Healthy Places* Chapter 25. Healthy places research: emerging opportunities

Select a topic of interest from these sources. Write a 3 to 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. References are allowed but are not necessary. 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.
- (If AI used) Statement of using generative AI

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

You *may* use AI tools for this assignment to:
- Explain difficult concepts, explore content and generate ideas
- Collect information and summarize literature
- Evaluate your written work for tone and formality
- Check for grammatical errors, or suggest improvements to your writing
- Review and provide counterpoints or critique to your proposed project

If you use AI tools, select your research topic before using those tools.

**Attribution to using AI tools**

If you use generative AI tools, such as ChatGPT, you are required to provide a written statement declaring how AI was used in the work. This is meant to a) encourage your development of appropriate attribution skills, b) reflect upon how generative AI is contributing to or/and harming your work, and c) protect you in the event that any issues are raised about potential Academic Misconduct.

Your written statement about use of AI tools should include the following.
1. Describe how you used generative AI in the assignment.
2. Describe how you verified AI’s input to your paper were correct or true and how you edited any input from AI.
3. Elaborate on your strategies for prompting to enhance AI's performance. This could include specific or refining prompts for more accurate and relevant responses. List out the prompts you provided in sequence.
4. Provide a reflection on how using generative AI tools has benefited or/and hindered the performance of your paper.
5. Attest that you did not put any protected data into an AI tool during your completion of the assignment, including copyrighted materials, the intellectual property of others, or personal information of others.

**Two-minute testimony: DUE DATE: March 7**
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 the March 7 class. You are welcome to use brief notes during your testimony but do not read your testimony from a script. Do not submit a written version of what you present to the class.

The topic you pick may be 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 remove minimum parking standards for all new residential and commercial construction in the city of Seattle

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

- Acknowledge use of AI tools if used; do not mention AI tools otherwise
- 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

Optional: You may use AI tools for this testimony assignment to:

- Explore and provide counterpoints to your argument.
- Explore potential questions from the decision-making group to whom you intend to present, to better engage with your testimony.

If done with AI assistance, select your topic before using AI, edit and fact check all content, and acknowledge that you used AI assistance as the first sentence of your testimony.

Illness Protocol

1. If you feel ill or exhibit respiratory or other symptoms, you should not come to class. Seek medical attention if necessary and notify your instructor(s) as soon as possible by email. UW Environmental Health & Safety recommends that you wear a well-fitting mask while you are symptomatic
2. Additional recommendations include getting your annual flu shot (https://wellbeing.uw.edu/flu-vaccination/) and getting boosted with the updated COVID vaccines (available at clinics and pharmacies, as well as through UW Medicine (https://www.washington.edu/coronavirus/vaccines/) and local health agencies).
3. Please check your email and CANVAS announcements daily BEFORE coming to class. If we need to conduct class remotely because the instructor or a guest speaker is unable to attend in person, we will send all registered students an email and/or post a CANVAS announcement with a Zoom link for remote instruction or a plan for making up the class.

Land Acknowledgement: The University of Washington acknowledges the Coast Salish people of this land, the land which touches the shared waters of all tribes and bands within the Duwamish, Suquamish, Tulalip, and Muckleshoot nations.

LEARNING ENVIRONMENT
The Department of Environmental and Occupational Health Sciences (DEOHS) strives to create welcoming and respectful learning environments that promote access and opportunity for all students, regardless of their experiences, perspectives, identities, and abilities. The DEOHS, along with The UW School of Public Health, seek to ensure all students are fully included in each course. We strive to create an environment that reflects community and mutual caring. Students are encouraged to talk to instructors, advisors, members of the departmental or SPH Diversity Committee and/or program director with concerns about the classroom climate.

If you feel like this class is not living up to that commitment, there are several ways you can register your concern and seek resolution:

- If you feel comfortable doing so, begin by discussing your concern with the instructor and/or teaching assistant. Your instructor is expected to take your concerns seriously and work with you to identify a resolution.
- If you are not comfortable discussing the concern with the instructor, or you did so and the issue has still not been resolved, contact Trina Sterry, DEOHS Manager of Student and Academic Services (tsterry@uw.edu) to discuss your concern. She can also connect you to the appropriate member of DEOHS faculty leadership as needed.
- If you prefer to discuss your concern directly with someone from the School of Public Health (SPH) Dean’s Office, you can review the SPH Student Concern Policy and follow the procedures described there, including reaching out to the SPH Assistant Dean for Equity, Diversity and Inclusion, Dr. Victoria Gardner (vg@uw.edu). If you prefer to anonymously report your concern, you can email dcinfo@uw.edu or use the SPH Bias Incident Report Form.
- If your concern is related to a bias incident, you can review the UW's guidance on reporting bias incidents, which includes a link to the UW Bias Reporting Tool.
- If you have experienced sex or gender discrimination, including sexual assault, relationship or intimate partner violence, stalking, sexual harassment, or other sexual misconduct, you have the right to make a formal complaint and request an investigation under Title IX. Information about Title IX reporting options is available at the UW Bias Reporting Tool.

Equity, Diversity & Inclusion

Diverse backgrounds, embodiments and experiences are essential to the critical thinking endeavor at the heart of University education. In SPH, students are expected:

- To respect individual differences, which may include, but are not limited to, age, cultural background, disability, ethnicity, family status, gender, immigration status, national origin, race, religion, sex, sexual orientation, socioeconomic status and veteran status.
- To engage respectfully in the discussion of diverse worldviews and ideologies embedded in course readings, presentations and artifacts, including those course materials that are at odds with personal beliefs and values.
- To encourage students with concerns about classroom climate to talk to their instructor, adviser, a member of the departmental or SPH EDI Committee, the Assistant Dean for EDI, or the program's director.

Course Summary:

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<thead>
<tr>
<th>Date</th>
<th>Details</th>
<th>Due</th>
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<tr>
<td>Thu Jan 25, 2024</td>
<td><a href="https://canvas.uw.edu/courses/1696505/assignments/8955964">Reading Reflections, Part 1, Weeks 1-4</a></td>
<td>due 5pm</td>
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<td>Thu Feb 1, 2024</td>
<td><a href="https://canvas.uw.edu/courses/1696505/assignments/8956465">Park and Street Audit</a></td>
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<td>Thu Feb 15, 2024</td>
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