UEP 294-16: Public Health and the Built Environment

Special Topics Course
Spring 2013

Instructor
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Office hours: Mondays 3-4pm or by appointment

Meeting Schedule
Mondays 9-11:30, Location TBD

Course Description
This course will explore the linkages between the built environmental and human health from a policy and planning perspective, with a focus on urban health issues. The epidemics of asthma, diabetes, and obesity have focused new attention on the role played by suburban sprawl, transportation, and other built environment features on human health. This course will investigate a broad range of elements needed to foster healthy places, and will explore topics such as the active transportation, obesity, air quality, food insecurity, climate change, land use impacts, and health disparities, among many others. Through the class discussions, lectures, guest speakers, and weekly assignments, students will gain a broad understanding of modern environmental health problems. We will also explore health impact assessments and other policy and planning tools designed to better understand and improve public health in US cities. Students will have the opportunity to self-design certain aspects of the course to focus specifically on their interests through both the weekly applied tasks and the choice of project topic.

Skills to be Learned
Students will learn to use and apply various tools for researching environmental health problems, including mapping software to explore the spatial distribution of hazards and the use of health impact assessments to evaluate policy alternatives. We will critique a wide range of articles drawn from the academic literature on this topic, and students will practice valuable literature review and project design skills. The weekly tasks will provide an opportunity for students to apply the lecture topics to a real-world setting relevant to their own interests.

Prerequisites
Some of the required readings will be quantitative in nature, and for that reason a basic knowledge of statistics is a prerequisite for taking this course (UEP 254 or equivalent). Prior coursework in ArcGIS is not a requirement for this class. For that reason, the mapping tools discussed in class and applied in the weekly tasks will focus largely on accessible web-based tools for exploring the spatial distribution of environmental hazards. Students are encouraged to use ArcGIS to complete these tasks if they are able.

Textbook and Required Readings
Environmental Health: From Global to Local, 2nd edition, by Howard Frumkin is the required textbook for this course. A copy of this textbook is on reserve in the student lounge at the White House, and it is also available for purchase on Amazon (~$60). This textbook was chosen because it provides a broad overview of the topics covered in this course as well as many other public health topics relevant to policy and planning practitioners. Additional required readings will be drawn from the academic and practitioner literature, and have been chosen to represent a well-rounded view of each week's topics. All readings and additional course materials will be made available on the Trunk course site at least a week before they are to be discussed in class.

Class participation
Class participation is an important component of this class and represents 20% of your final score. Students are expected to attend all classes, do all required readings and course preparation, and actively contribute to the in-class and online discussions.

Weekly Homework Tasks
A series of short written tasks will be posted online each week that require students to apply a topic covered in class to a real-world setting. Students are responsible for posting their task responses (300-500 words) on the designated discussion thread on Trunk, which will also be discussed in following class. Students are strongly encouraged to constructively comment on the postings of others, which will be factored into individual student class participation scores. The deadlines for posting task responses are Sundays at 5pm, after which time the message board for that week's task will be closed. This will provide both the instructor and students sufficient time to read and/or comment on the contributions of others before class on Monday morning. Please note that there will be no credit given for late postings.

Example of a task from previous years: "Examine your indoor home and work environments from a public health perspective. Can you identify at least three hazards? How would you correct them? Can you recognize additional hazards that might not impact yourself directly but could present a problem for susceptible sub-populations, such as children, the elderly, or the disabled?"

Final Project
Students will develop a proposal for a health impact assessment over the course of the semester, which will be due in sections as noted below. Scores for late proposal submissions will be reduced by one percentage point every day past the deadline, and

zero credit will be given to submissions over one week late. These assignments are intended to represent a first step towards developing a proposal for a health impact assessment. Students are required to properly reference each project assignment using the citation style supported by the journal *Environmental Health Perspectives*, a leading academic journal in this field. A number of helpful tutorials on writing different components of this assignment (literature review, methods, and referencing) are available on the Trunk course site under Project Files.

Project assignment #1 (Introduction): Develop a policy question in a public health topic that interests you, where you believe a health impact assessment might be useful for informing an ongoing policy debate about this issue. Provide background and context for your topic and describe its importance (approximately 1 page).

Project assignment #2 (Literature Review): Explore the policy and scientific literature surrounding your topic, and write a literature review section that provides context and background on your policy question (at least 5 pages).

Project assignment #3 (Methods): Outline an approach to develop and execute a health impact assessment for your chosen policy question, including a sufficiently detailed methods section describing your strategy for doing this work. The approach should provide detail on every step of the health impact assessment process (at least 5 pages).

Final project assignment: Students are expected to fully incorporate the instructor feedback received on each assignment into a final project proposal. This final corrected version will be due on the day the student is assigned to give an in-class presentation of their proposed HIA project (exact date TBD).

Final Course Grade

Graded Component	**Score Allotted**	**Score Description**
Class participation	20%	Combination of in-class and online participation
Weekly homework tasks	20%	2% for each task; late submissions will not be accepted
Final project		
Individual project assignments	21%	7% for each assignment; one percentage point deduction for each day late
Final (revised) version of project paper	24%	
In-class presentation	15%	

Course Outline

Week	Topic	Assignments Due	Background Readings from textbook	Additional readings*
Jan. 22 (Wed.)	Intro to Public Health and Built Environment		Chapter 14	*Frumkin 2002*
Jan. 27	Science, Risk, and Methods	Task #1	Chapters 3,4, 28	TBD
Feb. 3	Health Impact Assessment	Task #2		TBD
Feb. 10	Nature Contact	Task #3	Chapters 5 and 24	TBD
Feb. 20 (Thurs.)	Active Transportation	Task #4 Project #1		TBD
Feb. 24	Active Transportation	Task #5		TBD
Mar. 3	Food Insecurity	Task #6		TBD
Mar. 10	Food Insecurity	Task #7 Project #2		TBD
Mar. 17	*No class – Spring Break*			
Mar. 24	Transportation and Air Pollution	Task #8	Chapter 12	TBD
Mar. 31	Healthy Buildings	Task #9 Project #3	Chapter 19	TBD
Apr. 7	Climate Change	Task #10	Chapter 10 and 13	TBD
Apr. 14	Presentations			
Apr. 21	*No class – Holiday*			
Apr. 28	Presentations			
Exam period TBD	Presentations			

*Please note that additional required readings will be posted one week in advance of the lecture on the Trunk course site