

# Urban Environment and Public Health

(EPH Course Number: EPH 540)

## Clinical Research Building (CRB), 9<sup>th</sup> Floor, Room No.: 995

U. Miami Miller School of Medicine, Dept. of Epidemiology & Public Health, 1120 NW 14<sup>th</sup> St.,  
Miami, FL

Spring 2012 – Time: Thursdays, 4:30-7:00 p.m.

### Course Instructor:

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**Course Description:** Where we live, where we work, where we go, and how we get there may all impact our behaviors and ultimately our health and well-being. This course examines the urban environment – in particular, those aspects of urban/suburban/semi-rural environments created by humans. This includes how homes, neighborhoods, cities and regions impact public health challenges such as obesity, chronic disease, mental health, infectious disease, and injuries. This course will teach students to translate scientific findings to design healthy communities, and develop interventions to promote urban health. Students will learn how to map neighborhood characteristics such as food outlets, parks and walkability, and to develop recommendations for policymakers.

### **Course Learning Objectives:**

The course provides access to research as well as a forum for exploration and discussion that enables students to:

1. understand the intellectual foundation of both historic and current theories on the relationship between the urban environment and public health.
2. identify contemporary features of the urban environment that reflect past efforts to influence health.
3. evaluate the evidence for urban environment and health relationships, and the context of other factors that may influence health.
4. utilize studies and methodologies developed by the many professions and disciplines engaged in work on the urban environment and public health.
5. develop urban-environment-based intervention recommendations to promote public health.

**Course Material / Readings:** Assigned readings will come from current journal articles and other seminal readings in the cross-cutting area of the urban environment, behavior, and health, with a focus on those aspects of the urban environment that most influence the health of populations. A bibliography of supplemental readings drawn from recent books on the urban / built (physical) environment, urban planning, and health provides further resources.

**Student Participation:** Each class is structured to engage student perspectives through student responses to the readings, class discussion, journal critique presentation and moderated discussions, as well as presentation and discussion of the “*Mapping Assets*” and related “*Policy Assignment*” projects.

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**Grading/ Evaluation:**

- Student attendance & participation in discussion of readings (15%)
- *Journal Critique Presentation* (in-class presentation) (10%)
- Mid-term Exam (15%)
- ‘*Mapping Assets*’ Project (in-class presentation; 5-10-p. paper due after Spring Break) (25%)
- *Policy Assignment* (in class presentation; 2-p. memo for policymakers) (20%)
- Final Exam (scheduled during final examination period) (15%)

**Classes may only be missed with prior permission of instructor. Cell phones and pagers must be silent during class; computers can only be used in class for taking class notes and other class-related activities.**

**Session 1: January 19, 2012****Introduction and Course Overview; Planning and Historical Public Health**

Foundations of the Urban Environment and Health: Introduction to public health and planning history, evolution and significant movements to the present; History of connections between urban planning and public health.

Readings: Dannenberg et al. (2003; *AJPH*); Corburn (2004, *AJPH*); Frumkin et al., (2003); chapter from Jacobs (1961)

**Session 2: January 26, 2012****Concepts & Strategies of Behavior and Design in the Urban Environment; and Urban Contextual Variables: Land-Use & Transportation Systems**

Historic and current assessment and intervention theories on the relationship between urban/built environment and public health.; Identify current urban environment features such as patterns of development, density, and transportation systems that may impact health; Describe the transect or the theory of differential development across urban vs. suburban vs. semi-rural environments.

Readings: e.g., Casteel & Peek-Asa (2000; *AJPM*); chapter from *Suburban Nation*; Duany (2000); Frank & Pivo (1994)

**Session 4: February 2, 2012****Urban Environments and Physical Activity**

Discuss current findings on the relationship of the urban / built environment to physical activity and related behaviors, including walking/cycling and transportation use.

Readings: Frank et al. (2005, *AJPM*); Executive Summary of IOM/TRB (2005) report.

**Session 5: February 9, 2012****Urban Environments and Food Security**

Discuss current findings on the relationship of the urban / built environment to food security, and over- and/or under-nutrition.

Readings: TBA (e.g., Frank Farley; Amy Schulz).

**Session 6: February 16, 2012**

**Urban Environments & Obesity and Health**

Examine the accumulating evidence that urban / built environment/community design impacts health (e.g., obesity; cardiovascular disease; diabetes; arthritis; and possibly certain cancers).

Readings: Ewing et al. (2003); Sturm and Cohen (2004).

**Session 7: February 23, 2012**

**Assessing Streets, Neighborhoods, Towns, and Regions**

Describe ways of objectively assessing the characteristics of streets, neighborhoods, towns and regions. Discuss environmental health impact assessments.

Possible guest lecturer: Prof. Joanna Lombard in the School of Architecture.

Readings: Lombard et al. (2011); Spokane et al. (2007).

**Session 8: March 1, 2012**

**MIDTERM EXAM; and Urban Environments and Social Capital**

Describe current research on the relationship of urban / built environment/community design to social processes.

Readings: Leyden (2003); Skjaeveland et al. (1997).

**Session 9: March 8, 2012**

**Urban Environments and Mental Health**

Describe current findings on the relationship of urban / built environment/community design to mental health.

Readings: Evans (2003); Galea et al. (2005); Weich et al. (2002).

**March 15, 2011----SPRING BREAK, NO CLASS**

**Session 10: March 22, 2012**

**STUDENT PRESENTATIONS OF "MAPPING ASSETS" PROJECT; and**

**Air and Water Quality**

Relate the urban / built environment to outcomes of air pollution and water quality.

Possible lecture and/or reading by: Naresh Kumar, Dept. of Epidemiology.

**Session 11: March 29, 2012**

**Transportation and Traffic Safety**

Relate the urban / built environment to traffic safety and/or injury prevention.

Possible guest speaker and articles such as by: G. Hotz (Ryder Trauma) and C. Schulman (Surgery) and/or Antoine Messiah(?)

### **Session 12: April 5, 2012**

#### **Urban Environments and Health Disparities**

Describe the available evidence that urban / built environment may account for differences in health across socioeconomically disadvantaged and/or minority groups; Environmental Justice.

Readings: Gordon-Larsen et al. (2006); Leventhal & Brooks-Gunn (2003); Ludwig et al. (2011).

### **Session 13: April 12, 2012**

#### **Urban Environments and Lifespan Development**

Describe the relationship of the urban / built environment to differential outcomes in children, elders; Lifespace. Readings: Brown et al. (2009); Szapocznik et al. (2006).

Possible Guest Speaker: Elizabeth Burton, University of Warwick, Coventry, UK (who will be visiting Miami in spring 2012).

### **Session 14: April 19, 2012**

#### **International Urban Environments Policy and Global Impacts**

Sustainable Planning and Climate Change, Healthy Housing in a Global Context; Including Discussion of “mega-cities” and Rapid Urbanization of Developing Countries .

Possible Guest Speakers: Dr. Richard Grant in Geography (does work on mapping neighborhood assets in Africa); Dr. John Beier, UM DEPH (does global health work on preventing vector-borne illnesses, which may be impacted by land-use patterns).

### **Session 15: April 26, 2012**

#### **STUDENT PRESENTATIONS ON RECOMMENDATIONS FOR POLICY-**

MAKERS; Future Directions, Final Learning & Reflection:

Student presentations with invited faculty respondents

### **FINAL Exam: May 3, 2012**

Student Conduct. Students are responsible for knowing and complying with all University of Miami Policies and Regulations that are listed in the Student Handbook. This includes policies on cheating and plagiarism. If cheating and/or plagiarism occurs, immediate action will take place. Such action may include dismissal of the student from the master's or doctoral program.

#### **Grading**

A	92.6-100%	C	72.6-76.5%
A-	89.6-92.5%	C-	69.6-72.5%
B+	86.6-89.5%	D+	66.6-69.5%
B	82.6-86.5%	D	62.6-66.5%
B-	79.6-82.5%	D-	59.6-62.5%
C+	76.6-79.5%	F	59.5-0%