Course Number | PLAN 579  
Course Credit(s) | 3.0  
Course Title | Public Health, Transportation, and the Built Environment  
Term | 2017-2018 – Winter Term 1  
Day/Time | Thursday  
2:00 to 5:00pm

Instructor | Lawrence Frank  
Office | SPPH 360B  
Telephone | (604) 822-5387  
Email | Lawrence.frank@ubc.ca  
Office Hours | Meetings available by request

Short Course Description

Public health, transportation, and the built environment introduces students to the impacts that the urban built environment has on public health, with an emphasis on how the built environment affects travel behaviour which, in turn, affects health. Students will gain both a framework for assessing the built environment of urban areas, as well as gain a perspective on the many pathways by which the built environment relates to multiple health outcomes, including both physical and mental health. Students will be exposed to a wide selection of research papers establishing the links between the built environment and public health outcomes and it is expected that students will be able to apply these findings to specific transportation planning processes and projects. This course will be of interest to graduate and upper-level students in planning, public health, geography and real estate development.

Please be aware that this class is cross-listed with SPPH 571. You may only be registered, and will only receive credit, for either PLAN 579 or SPPH 571.

Course Format

This course is structured around weekly class lectures that will integrate both readings, led by students, and a topical lecture, led by the instructor or visiting guests. It is essential that you prepare for each class by reading the papers that are assigned each week. Readings will be distributed by email at least one week prior to the class.

Please note that this class does not use an online learning management system, and all course material will be provided (e.g. there is no required textbook).
Course Overview, Content and Objectives

It has been over two decades since the first awareness of a looming global obesity epidemic, and there has been an ever-increasing focus on the environmental destruction associated with automobile-dependence. While provincial mandates are calling for reductions in GHG emissions associated with vehicular travel, auto-dependent approaches to building communities still dominate our regional landscape, and funding to support road infrastructure remains far easier to come by than for transit.

Against that backdrop, students will learn how non-motorized transportation, access to recreational amenities, and a high quality (locally-focused) food environment can improve physical and mental health. This class will familiarize students with ways in which the built environment broadly impacts public health and specifically focus on factors that impact the ability to live a less car dependent lifestyle. This course will examine the historical relationship between urban design and demand for non-motorized travel and delve into the ways in which community design impacts access to healthy foods and how food environments impact obesity. There will also be a focus on understanding how community design impacts mental health, social capital – or “sense of community” – and quality of life.

The following topics will be covered in this course:

1. Historical relationships between city planning and public health
2. Understanding the built environment
3. Energy balance: healthy eating and active living
4. Physical Activity Relationships With the Built Environment
5. Obesity and Other Morbidities
6. Air Quality and Respiratory Impacts of Sprawl
7. Built Environment & Youth
8. Built Environment Features and Healthy Aging
9. Community Design and Traffic Safety
10. Sprawl and Mental Health and Social Capital
11. Walkable neighbourhoods and walking behaviour: Self-Selection or Causation?
12. Towards Healthy Communities for the 21st Century – Trans-disciplinary Research and Practice – the case for trans-disciplinary research

Learning Outcomes

Students in this class will learn about the physical and social connections between the design of the places where we live, work, and recreate and human health and well-being. More specifically, students will learn:

- The state of the evidence on the health effects of specific land development and transportation investment decisions;
- Why health should be a fundamental consideration when making planning decisions;
- Tools and techniques available to better connect urban planning and public health
- How to interpret quantitative and qualitative information from the academic literature;
- How to prepare, organize, and write a clear and concise evidence-based research paper; and
• How to structure and present ideas linking evidence with policy guidance to classmates and local agency representatives

**Attendance**

Attendance is not mandatory, but your attendance in class will partially determine your participation grade (see below).

**Evaluation Criteria and Grading**

**Grading**

You will be graded on a numeric (percentage) basis according to your grades in four assignments (see below). Grades will be as follows:

- 90-100 A+
- 85-89 A
- 80-84 A-
- 76-79 B+
- 72-75 B
- 68-71 B-
- 64-67 C+
- 60-63 C
- 55-59 C-
- 50-54 D
- 0-49 F (Fail)

**Course Assignments**

Your grade in this course will be derived from two, separate independent projects and one group field project. Students will also be evaluated based on their participation in class (see table below). Students will be responsible for the discussion of questions and may be asked to assist the professor with the photocopying/distribution of readings on the class period indicated with their name on the schedule.

A more detailed description of the purpose and requirements of each project will be provided in class. When writing papers, please be sure to properly cite and reference all sources.

There is no final exam for this class.

**Table 1: Course assignments**

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<thead>
<tr>
<th>Assignment</th>
<th>Description</th>
<th>Percent of your final grade</th>
<th>Due date</th>
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<tbody>
<tr>
<td>Assignment 1 – Independent project</td>
<td>A summary of the literature on the ways that the development and design of communities can support and promote a range of public health outcomes. It should review of some basic arguments and associated evidence that supports the need for increased physical activity and less sedentary lifestyles. The review should include some reference to ways in which the built environment influences travel patterns and overall</td>
<td>30%</td>
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activity levels. This is to be a 12 page paper followed by a list of sources in the form of bibliography.

Assignment 2 – Independent project
A review of the unique influences and relationships between health and environmental characteristics for a specific population such as youth, elderly, of a specific ethnicity, or the poor. This is to be a 12 page paper followed by a list of sources in the form of bibliography. 30%

Assignment 3 – Group Project
Group Project to be assigned. 30%

Class Participation
Class participation based on attendance and the submittal of questions from readings. Each student will be required to lead, or co-lead one in-class session where the readings are discussed. 10% N/A

Required Readings and Videos

Students will be required to read a selection of journal articles and policy reports, which will be finalized by the first week of class and will be distributed to students in the course.

There is no required textbook for this course.

Course Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics Covered</th>
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<tbody>
<tr>
<td>September 15</td>
<td>Class Overview: Historical relationships between city planning and public health</td>
</tr>
<tr>
<td>September 22</td>
<td>Understanding the built environment</td>
</tr>
<tr>
<td>September 29</td>
<td>Energy balance: healthy eating and active living</td>
</tr>
<tr>
<td>October 6</td>
<td>Physical Activity Relationships With the Built Environment</td>
</tr>
<tr>
<td>October 13</td>
<td>Obesity and Other Morbidities</td>
</tr>
<tr>
<td>October 20</td>
<td>Air Quality and Respiratory Impacts of Sprawl</td>
</tr>
<tr>
<td>October 27</td>
<td>Built Environment &amp; Youth</td>
</tr>
<tr>
<td>November 3</td>
<td>Built Environment Features and Healthy Aging</td>
</tr>
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<td>November 10</td>
<td>Community Design and Traffic Safety</td>
</tr>
<tr>
<td>November 17</td>
<td>Sprawl and Mental Health and Social Capital</td>
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<tr>
<td>November 24</td>
<td>Walkable neighbourhoods and walking behaviour: Self-Selection or Causation?</td>
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<tr>
<td>December 1</td>
<td>Towards Healthy Communities for the 21st Century – Trans-disciplinary Research and Practice – the case for trans-disciplinary research</td>
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<tr>
<td>December 8</td>
<td>Student Presentations</td>
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Special Needs

Please inform the course instructor as soon as possible if you have special needs and require accommodation of any kind. Please visit http://www.students.ubc.ca/access/ for more information on campus resources.
**Academic Integrity**

1. Assistance with the creation of a course syllabus is available through the Centre for Teaching, Learning and Technology, [www.ctlt.ubc.ca](http://www.ctlt.ubc.ca). Resources related to the development of assessable learning outcomes can be accessed through [http://ctlt.ubc.ca/resources/webliography/course-designdevelopment/](http://ctlt.ubc.ca/resources/webliography/course-designdevelopment/) The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President’s Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.

A more detailed description of academic integrity, including the University’s policies and procedures, may be found in the Academic Calendar at [http://calendar.ubc.ca/vancouver/index.cfm?tree=3,54,111,0](http://calendar.ubc.ca/vancouver/index.cfm?tree=3,54,111,0).