UDP 450: Integrative Approach to Land Use and Transportation Planning

INSTRUCTOR CONTACT INFORMATION
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Office room / hours: Lewis Hall 310 / Tuesdays and Thursdays, 2:30 – 3:30 p.m. or by appointment
Class room / time: Lewis Hall 210 / Tuesday 9:00 a.m. – 12:20 p.m.

INTRODUCTION
Have you ever wondered why you have to drive so long to get to your favorite shopping malls? Have you ever wished that you could just walk to your school without worrying about traffic? There is no straightforward answer because our travel pattern and housing choices are interconnected. And these choices are greatly influenced by how our land use and transportation system are setup.

Welcome to the UDP 450 “Land Use and Transportation” class. In this course, you will learn a broad range of topics in integrative approach to land use and transportation planning. Transportation planning and land use planning each deserves a semester-long course, but the focus of this course is to help you understand some of the emerging topics that call for an integrative approach. Without understanding the relationship between land use and transportation, it would be impossible to propose any solutions that address complex issues involving both land use and transportation system.

COURSE OBJECTIVES AND ORGANIZATION
Given the broad topics in land use and transportation, we will go over some of the fundamental topics in land use and transportation planning regarding current problems, theories, and applications. The objectives of this course are three-folds:

1. To recognize various issues and problems with the current land use and transport environment
2. To learn core theories in land use and transportation planning
3. To understand opportunities and challenges in applying the theories into practice

In the first part of this course, we will examine various issues and problems with the current built environment and transportation system, and review some of the early effort to address these issues. We will then go over an overview of various theories in land use and transportation planning, and how they have evolved and contributed to the development of contemporary planning paradigm. The later part of this course will focus on examining important cases and examples that present both opportunities and challenges with the integrative approach. The individual essay and group project will help you get familiar with the topics we cover, and allow you apply the knowledge into developing a professional project. By the end of this course, you will have a better idea of the integrative approaches, and be able to understand how to apply them into practice.

REQUIRED TEXTS

COURSE ASSIGNMENTS AND GRADES

Assignments
Your final grade for the course will be based on the following five items:

- Course participation 20%
- Bi-weekly quiz 20%
- Mid-term research paper 30%
- Group project and presentation 30%

Course participation
You are expected to attend all class sessions and read the assigned readings before the class. Reading is a critical piece for your learning in this class. If you had little time to read before the class, at least do an intellectual skim. That way, you can get something out of the class and contribute to class discussion. I understand that some of you may feel uncomfortable speaking up, so I will reward those who give the best effort. Your participation grade is also based on attendance. In case you need to miss more than two sessions due to any special circumstances, please kindly inform me via email or let me know in person.

Bi-weekly quiz
For every two weeks, we will have a 5-minute quiz in the beginning of the class. The quiz will be based on both your current and previous readings, as well as lecture materials. The purpose is to have you memorize at least some fundamental concepts in land use and transportation planning. It is a closed book test, and the format will be a mix of multiple choice and short written questions, ranging from 3-5 questions.

Mid-term research paper
The purpose of this assignment is to help improve your critical and analytical thinking as well as research ability. To make your life easier, it is best to choose a topic that your group decides to focus on for the final project, but you are free to choose any topic within the scope of land use and transportation planning that has some contentious or conflicting views. The paper will consist of two main things: 1) literature review on the proposed topic; 2) your perspective on the proposed topic based on evidence from the literature. Your ability to find good literature is critical, and I encourage you to use academic literature as much as you can while avoid using any Wikipedia sources at all cost. Below are some examples

- Can congestion pricing policy, such as LA Metro’s ExpressLane, be justified?
- What are some pros and cons of High Speed Rail investment?
- Who is responsible for maintaining local streets? Municipalities, states, or federal government?
- Is there a future in car-sharing or bike-sharing? Should government intervene?
- Can investment in public transit benefit everyone, vulnerable population, or not?

Group project and presentation
The focus of the group project is to produce a professional report. After the second week of the class, you will be assigned into a group of 4 – 5 people, and each team member will play the role as a professional consultant. You may use your research paper as a basis for your group project, but your group should decide which topic to focus early on. If your group cannot decide on a topic by the end of week 4, please let me know and I will help facilitate your decision process. Your group may choose your own format, but your deliverable should look something like: executive summary; introduction (purpose and background); substantive section 1 (relevant literature and case study); substantive section 2 (relevant literature and case study); substantive section 3 (relevant literature and case study); conclusion and recommendation; references and appendices. We will have more detail discussion about the final group project during the course, and you will have opportunities to get feedbacks from me regarding the progress of your group project throughout the course.
STATEMENT FOR STUDENTS WITH DISABILITIES

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

STATEMENT ON ACADEMIC INTEGRITY

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one’s own academic work from misuse by others as well as to avoid using another’s work as one’s own. All students are expected to understand and abide by these principles. Scampus, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: http://www.usc.edu/dept/publications/SCAMPUS/gov/. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: http://www.usc.edu/student-affairs/SJACS/.

EMERGENCY PREPAREDNESS/COURSE CONTINUITY:

In case of emergency, and travel to campus is difficult, USC executive leadership will announce an electronic way for instructors to teach students in their residence halls or homes using a combination of Blackboard, teleconferencing, and other technologies. Instructors should be prepared to assign students a "Plan B" project that can be completed at a distance. For additional information about maintaining your classes in an emergency please access: http://cst.usc.edu/services/emergencyprep.html

Please activate your course in Blackboard with access to the course syllabus. Whether or not you use Blackboard regularly these preparations will be crucial in an emergency. USC's Blackboard learning management system and support information is available at blackboard.usc.edu.
# COURSE SCHEDULE

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<thead>
<tr>
<th>DATE</th>
<th>TOPICS</th>
<th>READINGS AND LOGISTICS</th>
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<tbody>
<tr>
<td>Sep. 17</td>
<td>Course overview</td>
<td>No reading.</td>
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<tr>
<td>Sep. 24</td>
<td>Basics and evolution of the US cities and transportation system</td>
<td>Quiz 1&lt;br&gt;Chapter 1 in Hanson and Giuliano, 2004&lt;br&gt;Chapters 1 &amp; 2 in Meyer and Miller, 2001</td>
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<td>Overview of land use and transportation policy</td>
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<td>Oct. 1</td>
<td>The problems with land use: Urban sprawl, urban decay,</td>
<td>Group assignment&lt;br&gt;Chapter 1 in Crane and Boarnet 2000&lt;br&gt;Ewing et al 2003&lt;br&gt;Crane 2000</td>
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<td>Oct. 8</td>
<td>The problems with vehicles: Air pollution and climate change</td>
<td>Quiz 2&lt;br&gt;Chapters 10 &amp; 13 in Hanson and Giuliano, 2004&lt;br&gt;Dill 2004</td>
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<td>AB 32, SB 375&lt;br&gt;CAFE standards</td>
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<td>Oct. 15</td>
<td>The problems with vehicles: Physical inactivity and obesity&lt;br&gt;Walking and bicycling trends&lt;br&gt;School children and low-income population</td>
<td>Group topic facilitation&lt;br&gt;Chapter 1 in Frumkin 2004&lt;br&gt;Frank 2007&lt;br&gt;Galea 2000</td>
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<td>Oct. 29</td>
<td>Transportation and land use: theoretical background and recent development</td>
<td>Midterm paper due&lt;br&gt;Chapter 3 in Crane an Boarnet, 2000</td>
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<td>Nov. 5</td>
<td>Transportation and land-use: application of theories&lt;br&gt;Success story: London, Curitiba&lt;br&gt;Unsuccessful story</td>
<td>Quiz 4&lt;br&gt;Frausto 1999</td>
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<td>Nov. 12</td>
<td>New ways of thinking about transportation: mobility, accessibility, and transportation equity</td>
<td>Group project discussion&lt;br&gt;Deakin and Harvey 1996</td>
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<td>Nov. 19</td>
<td>Travel demand management: Pricing, mileage charging, car-sharing</td>
<td>FHWA 2012</td>
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<td>Date</td>
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<td>Reading</td>
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<td>Nov 26</td>
<td>Guest lecture: HOT lane, car-sharing</td>
<td>Quiz 5, Group project draft&lt;br&gt;Loudon 2010</td>
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<td>Dec 10</td>
<td>Class summary and debate: Technological solutions vs. pricing vs. land-use planning</td>
<td>No reading. Group project feedback and group meeting</td>
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<td>Dec 17</td>
<td>Final presentations&lt;br&gt;Final group paper due by Dec 20.</td>
<td>No reading.</td>
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**COMPLETE REFERENCE FOR READINGS**


