

## COURSE SYLLABUS

**CRP 3850/5850**

**Transportation and Land Use Planning**

3 units

Fall Semester, 2022

M/W 9:40am to 10:55am

Sibley Hall B12

**Course Assistant:** [REDACTED]

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**Office Hours:** M/W 11:30am to 12:30pm

### Course Description

This course interrogates the relationship between transportation and land use. It is not a course on transportation planning or land use planning, specifically, but a course that investigates the intrinsic relationship between the built environment and travel behavior. Among the questions that will be surveyed include:

- In what ways does the built environment influence vehicle, transit, or bicycling as a travel mode choice?
- In what ways do transportation investments influence urban form?
- Does the construction of a rail line lead to changes in development patterns?
- How do individuals and firms respond to different policy interventions?

Some case studies will be surveyed for comparative analysis.

### Learning Objectives and Outcomes

1. Describe the general relationship between transportation and land use.
2. Understand the concept of externalities in the transportation and land use sectors.
3. Describe the conflict between local and regional interests and issues relating to transportation and land use.
4. Evaluate the built environment and travel behavior impacts of different transportation and land use policy intervention strategies, respectively.
5. Explain and criticize different approaches to travel modeling and project impact analyses.

### Assignments and Grading

Assignment	Description	% of Grade
In-Class Participation	Your contribution to class discussion and group work will be accounted for in your grade. Generally, only students who show a clear lack of engagement will experience a reduced grade in this category.	15%
Pop Quizzes (5 total)	A total of five pop quizzes will be given at the start of class that cover the readings of that day. The dates that these will be proctored will be randomly chosen. The quizzes will be in short-answer format. Each pop quiz is equally weighted. Your lowest score pop quiz will be dropped from your grading.	25%
Midterm	A closed book/note in-class midterm will cover reading and lecture material up to the date of the midterm. Format will mostly entail long-answer questions.	30%
Term Paper	A term paper is due by <u>the end of the day (i.e., 11:59pm) on Wednesday, December 14, 2022</u> . The content of the paper will vary by student rank, as defined below. All papers shall be double-spaced, 12-point Times New Roman font, with one-inch margins. <ul style="list-style-type: none"> <li>• <b>Undergraduate Students:</b> One of a few topics/questions from the course that will be presented to you to choose from. Eight to ten double-spaced pages are expected and readings beyond the scope of class is optional.</li> <li>• <b>Graduate Students:</b> A paper of your topical choice, through consultation with me, that expands on topics of the class. Twelve to Sixteen double-spaced pages are expected and readings beyond the scope of class is required.</li> </ul>	30%

**Course Schedule**

Week	Module	Topic	Readings*
1	Introduction	Course Overview; Introductions	—
		What is the transportation-land use connection? Do we care?	Cervero and Landis (1995); Giuliano (1995)
2	Theoretical Foundations	Urban Economics; Location Choice	Ch. 5-6 in Mills and Hamilton (1989); Tiebout (1956)
		Transportation Economics; Travel Behavior	Ch. 3 in Ben-Akiva et al. (1985); Hägerstrand (1970); Zahavi and Talvitie (1980)
		Equity; Efficiency; Externalities	Taylor and Norton (2009); van Wee and Mouter (2021)
4	Transportation-Land Use Evolution	Before the Automobile; Automobile Era; Suburbanization of Jobs	Ch. 3 in Jones (1985); Mieszkowski and Mills (1993)
		Spatial Mismatch	Gobillon et al. (2007); Taylor and Ong (1995)
5		City-Region Relations; Dillon's Rule v. Home Rule; Cities as Corporations	Richardson et al. (2003)
		Transportation Impacts on Built Environment	Baum-Snow (2007); Boarnet (1998); Gupta et al. (2022)
6	Empirical Foundation Studies	Built Environment Impacts on Transportation	Crane (2000); Ewing and Cervero (2010); Mueller and Trujillo (2020)
		Density v. Sprawl: Demographics and Preferences	Blumenberg and King (2019); Glaeser et al. (2008); Schwanen and Mokhtarian (2004)
		Density v. Sprawl: Costs and Benefits	Gordon and Richardson (1997); Ewing (1997)
7		Information and Communication Technologies; Travel Time Budget	Aoustin and Levinson (2021); Giuliano (1998); Redmond and Mokhtarian (2001)
8	Midterm	—	—
9	Practice	Travel Modeling; Traffic Impact Analysis v. Level-of-Service	Johnston (2004); Lee and Handy (2018); Volker et al. (2019)
		In-Class Projects; Case Study in Practice	Mallett (2014)
10		Metropolitan Governance and Planning; Megaregions	An and Bostic (2021); Innes et al. (2010); Sciara et al. (2021)
11		Urban Growth Boundaries	Jun (2004); Rodriguez et al. (2006); Woo and Guldmann (2011)
		Transit-Oriented Development	Chatman (2009); Deboosere et al. (2018); Lund (2006)
12	Policy Interventions	Jobs-Housing Balance; Affordable Housing	Blumenberg and King (2021); Howell et al. (2018); Ryan and Enderle (2012)
		Integrated Transportation-Land Use Planning; Up-zoning	Manville et al. (2022); Metropolitan Transportation Commission (2005); Rodriguez-Pose and Storper (2020)
13		Land Value Capture	Fischer (2022); Salon et al. (2019); Wenner (2018)
		Travel Demand Management; Road Pricing	Giuliano (1992); Theisen (2020); Tillema et al. (2010)

Week	Module	Topic	Readings*
14		Access Equity via Transport Subsidies	Fan (2012); Giuliano (2005); Klein (2020)
15	Applied Topics	Sharing Economies/Disruptive Technologies	Brown (2019); Jiao and Bai (2020); Schaller (2021)
		Comparative International Topics: Developing Countries/The “Global South”	Cervero (2013); Chauvin et al. (2017); Hui et al. (2004)
16	Closing Lecture	Course Conclusion; Closing Dialogue	—

\* Readings are complimentary to lectures. Contents of readings do not define all content that will be covered on the given topic.

### **Grading Scale**

Grade	Percent Range
A	[95%, 100%)
A-	[90%, 95%)
B+	[87%, 90%)
B	[84%, 87%)
B-	[80%, 84%)
C+	[77%, 80%)
C	[74%, 77%)
C-	[70%, 74%)
D+	[67%, 70%)
D	[64%, 67%)
D-	[60%, 64%)
F	[0%, 60%)

### **Academic Integrity**

Each student in this course is expected to abide by the Cornell University Code of Academic Integrity. Any work submitted by a student in this course for academic credit will be the student's own work. For this course, collaboration is allowed when specified.

You are encouraged to study together and to discuss information and concepts covered in lecture and the sections with other students. You can give "consulting" help to or receive "consulting" help from such students. However, this permissible cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in the form of an e-mail, an e-mail attachment file, a diskette, or a hard copy.

Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment. Penalty for violation of this Code can also be extended to include failure of the course and University disciplinary action.

During examinations, you must do your own work. Talking or discussion is not permitted during the examinations, nor may you compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations may lead to failure of the course and University disciplinary action.

### **Accommodations for students with disabilities**

In compliance with the Cornell University policy and equal access laws, I am available to discuss appropriate academic accommodations that may be required for student with disabilities. Requests for academic accommodations are to be made during the first three weeks of the semester, except for unusual circumstances, so arrangements can be made. Students are encouraged to register with Student Disability Services to verify their eligibility for appropriate accommodations.

### **Inclusivity Statement**

We understand that our members represent a rich variety of backgrounds and perspectives. The Urban and Regional Studies program and the City and Regional Planning department are committed to providing an atmosphere for learning that respects diversity. While working together to build this community we ask all members to:

- Share their unique experiences, values, and beliefs;
- Be open to the views of others;
- Honor the uniqueness of their colleagues;
- Appreciate the opportunity that we have to learn from each other in this community;
- Value each other's opinions and communicate in a respectful manner;
- Keep confidential discussions that the community has of a personal (or professional) nature; and
- Use this opportunity together to discuss ways in which we can create an inclusive environment in this course and across the Cornell community.

**Bibliography**

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