

# COURSE SYLLABUS

**CRP 3850/5850**  
**Transportation and Land Use Planning**  
3 units  
Fall Semester, 2023  
M/W 11:40am to 12:55pm  
Sibley Hall 211  
**Course Assistant:** [REDACTED]

**Zakhary Mallett**  
**College of Architecture, Art, and Planning**  
**Cornell University**  
311 West Sibley Hall  
Ithaca, New York, 14853  
607-255-2333 / [zmallett@cornell.edu](mailto:zmallett@cornell.edu)  
**Office Hours:** M/W 1:30pm to 2:30pm  
(or by appointment)

## Course Description

This course examines 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, group work, and in-class assignments 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.	20%
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. One-third of the value of each pop quiz will be for taking the quiz. Pop quizzes will be in short-answer format. Each quiz is weighted equally. Your lowest score pop quiz will be dropped from your grading.	15%
Reading Annotations	A total of either four reading annotations, or two reading annotations and two replies to classmates' reading annotations, are required. These should be spread across at least two of the six class modules (exclusive of Introduction), cannot be applied to the paper(s) for which a student serves as Discussant, and annotations and responses shall be on different readings.	15%
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 short-to-long answer questions.	25%

Assignment	Description	% of Grade
Term Paper	<p>A term paper is due by <u>the end of the day (i.e., 11:59pm) on Wednesday, December 13</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.</p> <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 literature review 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. A draft proposal is due by November 1. Late proposals will cost 2.5 percentage points per day late up to 20%.</li> </ul>	25%

### Course Schedule

Week	Date	Module	Topic	Readings*
1	August 21	Introduction	Course Overview; Introductions	—
	August 23		What is the transportation-land use connection? Do we care?	Cervero and Landis (1995); Giuliano (1995)
2	August 28	Theoretical Foundations	Urban Economics; Location Choice	Ch. 5-6 in Mills and Hamilton (1989); Tiebout (1956)
	August 30		Transportation Economics; Travel Behavior	Ch. 3 in Ben-Akiva et al. (1985); Hägerstrand (1970); Zahavi and Talvitie (1980)
3	September 6		Equity; Efficiency; Externalities	Taylor and Norton (2009); van Wee and Mouter (2021)
4	September 11	Transportation-Land Use Evolution	Before the Automobile; Automobile Era; Suburbanization of Jobs; Spatial Mismatch	Ch. 3 in Jones (1985); Mieszkowski and Mills (1993); Taylor and Ong (1995)
	September 13		City-Region Relations; Dillon's Rule v. Home Rule; Cities as Corporations	Richardson et al. (2003)
5	September 18	Empirical Foundation Studies	Transportation Impacts on Built Environment	Baum-Snow (2007); Boarnet (1998); Gupta et al. (2022)
	September 20		Built Environment Impacts on Transportation	Crane (2000); Ewing and Cervero (2010); Mueller and Trujillo (2020)
6	September 25	Empirical Foundation Studies	Density v. Sprawl: Demographics and Preferences	Blumenberg and King (2019); Glaeser et al. (2008); Schwanen and Mokhtarian (2004)
	September 27		Density v. Sprawl: Costs and Benefits	Duranton and Puga (2020); Goodman (2019)
7	October 2	Midterm	Information and Communication Technologies; Travel Time Budget	Aoustin and Levinson (2021); Giuliano (1998); Redmond and Mokhtarian (2001)
	October 4		—	—
8	October 11	Practice	Travel Modeling; Traffic Impact Analysis v. Level-of-Service	Johnston (2004); Lee and Handy (2018); Volker et al. (2019)

Week	Date	Module	Topic	Readings*
9	October 16 <i>(drop deadline w/o "W")</i>	Practice (cont.)	In-Class Projects; Case Study in Practice	Mallett (2014)
	October 18			—
10	October 23	Policy Interventions	Metropolitan Governance and Planning; Megaregions	An and Bostic (2021); Innes et al. (2010); Sciara et al. (2021)
	October 25			—
11	October 30		Urban Growth Boundaries	Jun (2004); Rodriguez et al. (2006); Woo and Guldmann (2011)
	November 1 <i>(paper proposal deadline)</i>		Transit-Oriented Development	Chatman (2009); Deboosere et al. (2018); Lund (2006)
12	November 6		Jobs-Housing Balance; Affordable Housing	Blumenberg and King (2021); Howell et al. (2018); Ryan and Enderle (2012)
	November 8 <i>(drop deadline w "W")</i>		Integrated Transportation-Land Use Planning; Up-zoning	Manville et al. (2022); Metropolitan Transportation Commission (2005); Rodríguez-Pose and Storper (2020)
13	November 13		Land Value Capture	Fischer (2022); Salon et al. (2019); Wenner (2018)
	November 15		Travel Demand Management; Road Pricing	Giuliano (1992); Theisen (2020); Tillema et al. (2010)
14	November 20		Access Equity via Transport Subsidies	Fan (2012); Giuliano (2005); Klein (2020)
15	November 27		Applied Topics	Comparative International Topics: Developing Countries/Global South
	November 29	Post-Pandemic Transportation-Land Use Interaction		Florida et al. (2021); Ramani and Bloom (2021); Salon et al. (2022)
16	December 4	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	[94%, 100%)
A-	[90%, 94%)
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**

- An, Brian Y., and Raphael W. Bostic. "What determines where public investment goes? Regional governance and the role of institutional rules and power." *Public Administration Review* 81.1 (2021): 64-80.
- Aoustin, Louise, and David M. Levinson. "Longing to travel: Commute appreciation during COVID-19." *Findings* (2021): 18523.
- Aveline-Dubach, Natacha, and Guillaume Blandeau. "The political economy of transit value capture: The changing business model of the MTRC in Hong Kong." *Urban Studies* 56.16 (2019): 3415-3431.
- Baum-Snow, Nathaniel. "Did highways cause suburbanization?." *The quarterly journal of economics* 122.2 (2007): 775-805.
- Ben-Akiva, Moshe E., Steven R. Lerman, and Steven R. Lerman. *Discrete choice analysis: theory and application to travel demand*. Vol. 9. MIT press, 1985.
- Blumenberg, Evelyn, and Hannah King. "Jobs–housing balance re-re-visited." *Journal of the American Planning Association* 87.4 (2021): 484-496.
- Blumenberg, Evelyn, and Hannah King. "Low-income workers, residential location, and the changing commute in the United States." *Built Environment* 45.4 (2019): 563-581.
- Boarnet, Marlon G. "Spillovers and the locational effects of public infrastructure." *Journal of regional science* 38.3 (1998): 381-400.
- Cervero, Robert, and John Landis. "The transportation-land use connection still matters." *Access Magazine* 1.7 (1995): 2-10.
- Cervero, Robert. "Linking urban transport and land use in developing countries." *Journal of transport and land use* 6.1 (2013): 7-24.
- Chatman, Daniel G. "Residential choice, the built environment, and nonwork travel: evidence using new data and methods." *Environment and planning A* 41.5 (2009): 1072-1089.
- Chauvin, Juan Pablo, et al. "What is different about urbanization in rich and poor countries? Cities in Brazil, China, India and the United States." *Journal of Urban Economics* 98 (2017): 17-49.
- Crane, Randall. "The influence of urban form on travel: an interpretive review." *Journal of Planning literature* 15.1 (2000): 3-23.
- Deboosere, Robbin, Ahmed M. El-Geneidy, and David Levinson. "Accessibility-oriented development." *Journal of Transport Geography* 70 (2018): 11-20.
- Duranton, Gilles, and Diego Puga. "The economics of urban density." *Journal of economic perspectives* 34.3 (2020): 3-26.
- Ewing, Reid, and Robert Cervero. "Travel and the built environment: A meta-analysis." *Journal of the American planning association* 76.3 (2010): 265-294.
- Fan, Yingling. "The planners' war against spatial mismatch: Lessons learned and ways forward." *Journal of Planning Literature* 27.2 (2012): 153-169.
- Fischer, Lauren Ames. "'Tax Discrimination District' The Intersection of Race and Transit Value Capture." *Journal of the American Planning Association* (2022): 1-13.
- Florida, Richard, Andrés Rodríguez-Pose, and Michael Storper. "Cities in a post-COVID world." *Urban studies* (2021).
- Giuliano, Genevieve. "Low income, public transit, and mobility." *Transportation Research Record* 1927.1 (2005): 63-70.
- Giuliano, Genevieve. "Information technology, work patterns and intra-metropolitan location: A case study." *Urban studies* 35.7 (1998): 1077-1095
- Giuliano, Genevieve. "The weakening transportation-land use connection." *Access Magazine* 1.6 (1995): 3-11.
- Giuliano, Genevieve. "Transportation demand management: promise or panacea?." *Journal of the American Planning Association* 58.3 (1992): 327-335.
- Glaeser, Edward L., Matthew E. Kahn, and Jordan Rappaport. "Why do the poor live in cities? The role of public transportation." *Journal of urban Economics* 63.1 (2008): 1-24.
- Goodman, Christopher B. "The fiscal impacts of urban sprawl: Evidence from US county areas." *Public Budgeting & Finance* 39.4 (2019): 3-27.
- Gupta, Arpit, Stijn Van Nieuwerburgh, and Constantine Kontokosta. "Take the Q train: Value capture of public infrastructure projects." *Journal of Urban Economics* 129 (2022): 103422.

- Hägerstrand, Torsten. "What about people in regional science?." *Papers of the Regional Science Association*. Vol. 24. 1970.
- Howell, Amanda, et al. "Transportation impacts of affordable housing." *Journal of Transport and Land Use* 11.1 (2018): 103-118.
- Innes, Judith E., David E. Booher, and Sarah Di Vittorio. "Strategies for megaregion governance: Collaborative dialogue, networks, and self-organization." *Journal of the American planning association* 77.1 (2010): 55-67.
- Johnston, Robert. 2004. The urban transportation planning process. In *The geography of urban transportation* (ibid), Chapter 5, pp. 86-114.
- Jones Jr, David W. "Urban transit policy: An economic and political history." (1985).
- Jun, Myung-Jin. "The effects of Portland's urban growth boundary on urban development patterns and commuting." *Urban Studies* 41.7 (2004): 1333-1348.
- Klein, Nicholas J. "Subsidizing car ownership for low-income individuals and households." *Journal of Planning Education and Research* (2020): 0739456X20950428.
- Lee, Amy E., and Susan L. Handy. "Leaving level-of-service behind: The implications of a shift to VMT impact metrics." *Research in Transportation Business & Management* 29 (2018): 14-25.
- Lund, Hollie. "Reasons for living in a transit-oriented development, and associated transit use." *Journal of the American Planning Association* 72.3 (2006): 357-366.
- Mallett, Zakhary. "VTA should switch BART route to follow highways to North San Jose." *The Mercury News*, 22 Nov 2014, [www.mercurynews.com/2014/11/22/zakhary-mallett-vta-should-switch-bart-route-to-follow-highways-to-north-san-jose](http://www.mercurynews.com/2014/11/22/zakhary-mallett-vta-should-switch-bart-route-to-follow-highways-to-north-san-jose)
- Manville, Michael, Michael Lens, and Paavo Monkkonen. "Zoning and affordability: A reply to Rodríguez-Pose and Storper." *Urban Studies* 59.1 (2022): 36-58.
- Metropolitan Transportation Commission. *MTC Resolution 3434 Transit-Oriented Development (TOD) Policy for Regional Transit Expansion Projects*. Metropolitan Transportation Commission, 2005.
- Mieszkowski, Peter, and Edwin S. Mills. "The causes of metropolitan suburbanization." *Journal of Economic perspectives* 7.3 (1993): 135-147.
- Mills, Edwin S., and Bruce W. Hamilton. "Urban Economics. ed." *Glenview, IL: Scott, Foresman and Company* (1989).
- Mueller, Andrew G., and Daniel J. Trujillo. "The impact of zoning and built environment characteristics on transit, biking, and walking." *Journal of Sustainable Real Estate* 11.1 (2019): 108-129.
- Ramani, Arjun, and Nicholas Bloom. *The Donut effect of COVID-19 on cities*. No. w28876. National Bureau of Economic Research, 2021.
- Redmond, Lothlorien S., and Patricia L. Mokhtarian. "The positive utility of the commute: modeling ideal commute time and relative desired commute amount." *Transportation* 28.2 (2001): 179-205.
- Richardson, Jesse J., Meghan Zimmerman Gough, and Robert Puentes. *Is home rule the answer?: clarifying the influence of Dillon's rule on growth management*. Washington, DC: Center on Urban and Metropolitan Policy, the Brookings Institution, 2003.
- Rodríguez, Daniel A., Felipe Targa, and Semra A. Aytur. "Transport implications of urban containment policies: a study of the largest twenty-five US metropolitan areas." *Urban Studies* 43.10 (2006): 1879-1897.
- Rodríguez-Pose, Andrés, and Michael Storper. "Housing, urban growth and inequalities: The limits to deregulation and upzoning in reducing economic and spatial inequality." *Urban Studies* 57.2 (2020): 223-248.
- Ryan, Sherry, and Bridget Elaine Enderle. "Examining spatial patterns in affordable housing: the case of California density bonus implementation." *Journal of Housing and the Built Environment* 27.4 (2012): 413-425.
- Salon, Deborah, Elliott Sclar, and Richard Barone. "Can location value capture pay for transit? Organizational challenges of transforming theory into practice." *Urban Affairs Review* 55.3 (2019): 743-771.
- Salon, Deborah, et al. "The COVID-19 pandemic and the future of telecommuting in the United States." *Transportation Research Part D: Transport and Environment* 112 (2022): 103473.
- Schwanen, Tim, and Patricia L. Mokhtarian. "The extent and determinants of dissonance between actual and preferred residential neighborhood type." *Environment and planning B: Planning and Design* 31.5 (2004): 759-784.
- Sciara, Gian-Claudia, Mashrur Rahman, and Rydell Walthall. "A seat at the table? Transit representation in US metropolitan planning." *Transport Policy* 114 (2021): 165-173.

- Taylor, Brian D., and Alexandra Tassiello Norton. "Paying for transportation: What's a fair price?." *Journal of Planning Literature* 24.1 (2009): 22-36.
- Taylor, Brian D., and Paul M. Ong. "Spatial mismatch or automobile mismatch? An examination of race, residence and commuting in US metropolitan areas." *Urban studies* 32.9 (1995): 1453-1473.
- Theisen, Theis. "The impact of an urban toll ring on housing prices." *Research in Transportation Economics* 82 (2020): 100882.
- Tiebout, Charles M. "A pure theory of local expenditures." *Journal of political economy* 64.5 (1956): 416-424.
- Tillema, Taede, Bert van Wee, and Dick Ettema. "The influence of (toll-related) travel costs in residential location decisions of households: A stated choice approach." *Transportation Research Part A: Policy and Practice* 44.10 (2010): 785-796.
- van Wee, Bert, and Niek Mouter. "Evaluating transport equity." *Advances in Transport Policy and Planning* 7 (2021): 103-126.
- Volker, Jamey MB, Joe Kaylor, and Amy Lee. "A New Metric in Town: A Survey of Local Planners on California's Switch from LOS to VMT." *Transport Findings* (2019).
- Wenner, Fabian. "Sustainable urban development and land value taxation: The case of Estonia." *Land Use Policy* 77 (2018): 790-800.
- Woo, Myungje, and Jean-Michel Guldmann. "Impacts of urban containment policies on the spatial structure of US metropolitan areas." *Urban Studies* 48.16 (2011): 3511-3536.
- Zahavi, Yacov, and Antti Talvitie. *Regularities in travel time and money expenditures*. No. 750. 1980.