

## USP 537 – Economics of Urban Transportation

Professor: Jenny H. Liu, Ph.D.

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OH: T noon-1pm (by prior appointment)

Class Time: T 9:00am-11:50am @URB220

Course Website: <https://canvas.pdx.edu/courses/111649>

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### Readings

Readings are taken from multiple sources, and may be posted on the course website, found in the library or distributed in class. Some sources may include:

- *Essays in Transportation Economics and Policy* by Gomez-Ibanez et al. (denoted as [GTW] below) – available online via PSU Library (<http://search.library.pdx.edu/PSU:all:CP71188834700001451> )
- Access Magazine – <http://www.uctc.net>
- *The Economics of Urban Transportation* by Small and Verhoef
- *Still Stuck in Traffic* by Downs
- *Last Exit* by Clifford Winston
- *Curb Rights* by Klein, Moore and Reja (denoted as [KMR] below)
- Transportation Research Record

### Course Objectives

The transportation system is critical to the functioning of an urban area. The movement of people and goods affects both the productivity and livability of the region. Transportation systems also affect and are affected by land use and location decisions. This course will equip planners with the economic toolkit needed to understand and evaluate urban transportation policies and projects. We will examine the supply and demand of transportation markets, critical tensions between market efficiency and social equity, transportation project finance and evaluation and applied transportation issues through an economic lens.

Specifically, this course primarily focuses on the following [MURP Student Learning Outcomes](#):

SLO1. MURP students will apply knowledge and skills to create more equitable and just communities and planning outcomes.

SLO5. MURP students will assess forces impacting human settlements and interconnections among systems.

SLO8. MURP students will collect and analyze information relevant to plan making.

SLO9. MURP students will communicate plans and planning knowledge effectively and persuasively.

## Grading

	Percentage
Assignments	40%
Class Participation	10%
Case Study	
Group Presentation	25%
Reflections	25%

Your grade will be based on your performance on the assignments, class participation and case study activities. Due dates are tentatively listed in the course calendar below and on Canvas.

## Assignments

Assignments will be posted on the class website and may consist of quantitative, graphing, qualitative problems, short essays and policy memos. Each assignment will be counted equally. They need to be

	Posted	Due
Assignment #1	W2 (01/13)	W4 (01/27)
Assignment #2	W4 (01/27)	W6 (02/10)
Assignment #3	W7 (02/17)	W9 (03/03)
Assignment #4	W9 (03/03)	W11 (03/17)

turned in *before the beginning* of class on the due dates on Canvas Assignments. Late submissions are accepted, but will receive an automatic 20% deduction for every 24 hours that it is late. Assignments will be graded on effort, completeness, correctness and methodology chosen. You may work with your classmates, but you **must** write your own answers (please note all group member names on your assignment).

## Class Participation

Each student is expected to come prepared to each class session to discuss the readings, engage with your peers, and participate in in-class activities such as debates or written reflections.

## Case Studies Presentations and Reflections

- **Session leader group:** Your group will need to prepare a 15-20 minute presentation to introduce the case study topic, and **facilitate** a class discussion (about 15-20 minutes). The discussion/presentation may be supplemented with additional sources if you wish. The presentation should include background information on the case study topic, discussion of applicable economic principles, intuitions, implications or arguments, why there may be a need for government intervention via policies or programs and important considerations for designing such policies or programs. The discussion/presentation may be supplemented with additional sources if you wish. Your presentations will be evaluated on content, organization, communication and engagement.
  - We also want to think critically about the readings. In thinking about the implications of the study, focus on the following:
    - What are the strengths and weaknesses of the argument put forth?
    - What are the limitations of the conclusions reached, if any?
    - Can we rely on the study's findings in all situations?
- **Rest of class:** In order to constructively engage in discussion, you are required to read the assigned case study articles, and submit a critical reflection on Canvas Discussion prior to

the scheduled discussion of the presentations, except in the week in which you are presenting. These reflections should be approximately 500-1000 words, and include a critical and thoughtful reflection of the case study readings.

- Summarize and analyze:
  - Concisely summarize **one** reading
  - What are the main points of the readings? What are the main economic principles?
  - Describe any key assumptions or theories
- Evaluate and critique
  - What are the strengths and weakness of the arguments or methods?
  - What are the gaps?
  - Are there any alternative evaluation approaches or additional considerations?  
How is equity or social justice addressed (or not)?

## USP 537 Course Calendar

Note that the course calendar is tentative and is subject to change as the instructor deems appropriate. Any updates will be announced in class and documents on Canvas announcements.

### I. Introduction & Microeconomic Foundations - Week 1 (01/06) & Week 2 (01/13)

#### Week 1 (01/06)

- [GTW] Chap 11 – “The Urban Transportation Problem: A Reexamination and Update”
- [KMR] Chap 1 – “Introduction”
- [KMR] Chap 2 – “The Triumph of the Automobile”
- [KMR] Chap 3 – “The Fizzle of Traditional Transit”

#### Week 2 (01/13)

- [Emerson] Chap 5 – Individual Demand and Market Demand
- [Emerson] Chap 10 – Market Equilibrium: Supply and Demand

### II. Demand for Transportation - Week 3 (01/20) & Week 4 (01/27)

#### Week 3 (01/20)

- Litman, T. (2025). *Understanding transport demands and elasticities*. Victoria, BC, Canada: Victoria Transport Policy Institute.
- [GTW] Chap 2 – “The Demand for Transportation: Models and Applications”
- Button, K. (2010) *Transportation Economics*. Chap 4 – “The Demand for Transport”

#### Week 4 (01/27)

##### Due: Assignment #1 (01/27)

- Santos, G., Behrendt, H., Maconi, L., Shirvani, T., & Teytelboym, A. (2010). Part I: Externalities and economic policies in road transport. *Research in transportation economics*, 28(1), 2-45.
- Parry, I. W. H., Walls, M., & Harrington, W. (2007). Automobile externalities and policies. *Journal of economic literature*, 45(2), 373-399.

### III. Transportation, Land Use and Accessibility – Week 5 (02/03) & Week 6 (02/10)

##### Due: Assignment #2 (02/10)

- [GTW] Chap 12 – “Transportation and Land Use”
- Gobillon, L., Selod, H., & Zenou, Y. (2007). The mechanisms of spatial mismatch. *Urban studies*, 44(12), 2401-2427.

### IV. Project Evaluation – Week 7 (02/17) & Week 8 (02/24)

- [GTW] Chap 5 – “Project Evaluation”
- Liu, J.H. and Shi, W. (2017). Impact of Bike Facilities on Residential Property Prices. *Transportation Research Record: Journal of the Transportation Research Board*, 2662, 50-58.
- Flyvbjerg, B., Holm, M. S., & Buhl, S. (2002). Underestimating costs in public works projects: Error or lie? *Journal of the American Planning Association*, 68(3), 279-295.

- Lakshmanan, T. R., & Chatterjee, L. R. (2005). Economic Consequences of Transport Improvements. *Access*, 26:28-33. University of California Transportation Center.
- Gibson, B., & Wallace, C. (2016). Cost benefit analysis: applications and future opportunities. Kentucky Transportation Center

#### V. Transportation Finance – Week 9 (03/03) & Week 10 (03/10)

##### **Due: Assignment #3 (03/03)**

- ODOT (2024) - House Bill 2017 A Transformative Investment in Oregon's Transportation System.
- Slone, S. (2009). *Transportation & Infrastructure Finance: A CSG National Report*. Council of State Governments.
- Ardila-Gomez, A., & Ortegón-Sánchez, A. (2016). Sustainable Urban Transport Financing from the Sidewalk to the Subway: Capital, Operations, and Maintenance Financing. World Bank Publications.

#### Finals Week (03/17)

##### **Due: Assignment #4 (03/17)**

## Case Study Presentation/Discussion Schedule

Date	Paper Titles
<b>W5</b> <b>02/03</b>	<p><b>Congestion Charge</b></p> <p>Albalade, D., &amp; Bel, G. (2009). What local policy makers should know about urban road charging: Lessons from worldwide experience. <i>Public administration review</i>, 69(5), 962-974.</p> <p>Eliasson, J., &amp; Mattsson, L. G. (2006). Equity effects of congestion pricing: quantitative methodology and a case study for Stockholm. <i>Transportation Research Part A: Policy and Practice</i>, 40(7), 602-620.</p> <p>Leape, J. (2006). The London congestion charge. <i>The Journal of Economic Perspectives</i>, 20(4), 157-176.</p> <p>Manville, M., &amp; Goldman, E. (2018). Would congestion pricing harm the poor? Do free roads help the poor?. <i>Journal of Planning Education and Research</i>, 38(3), 329-344.</p> <p>Vonk Noordegraaf, D., Annema, J. A., &amp; Van Wee, B. (2014). Policy implementation lessons from six road pricing cases. <i>Transportation Research Part A: Policy and Practice</i>, 59, 172-191.</p>
<b>W6</b> <b>02/10</b>	<p><b>Parking</b></p> <p>Pierce, G., &amp; Shoup, D. (2013). SFpark: Pricing Parking by Demand. <i>ACCESS Magazine</i>, 43.</p> <p>Anderson, S. P., &amp; de Palma, A. (2004). The economics of pricing parking. <i>Journal of Urban Economics</i>, 55(1), 1-20.</p> <p>Inci, E. (2015). A review of the economics of parking. <i>Economics of Transportation</i>, 4(1), 50-63.</p> <p>Krishnamurthy, C. K. B., &amp; Ngo, N. S. (2020). The effects of smart-parking on transit and traffic: Evidence from SFpark. <i>Journal of Environmental Economics and Management</i>, 99, 102273.</p>
<b>W7</b> <b>02/17</b>	<p><b>Transportation Sharing Economy</b></p> <p>Deighton-Smith, R. (2018). The economics of regulating ride-hailing and dockless bike share. <i>International Transport Forum Discussion Paper</i>.</p> <p>Hall, J. D., Palsson, C., &amp; Price, J. (2018). Is Uber a substitute or complement for public transit?. <i>Journal of Urban Economics</i>, 108, 36-50.</p> <p>Button, K., Frye, H., &amp; Reaves, D. (2020). Economic regulation and E-scooter networks in the USA. <i>Research in transportation economics</i>, 100973.</p> <p>Liao, F., &amp; Correia, G. (2022). Electric carsharing and micromobility: A literature review on their usage pattern, demand, and potential impacts. <i>International Journal of Sustainable Transportation</i>, 16(3), 269-286.</p>
<b>W8</b> <b>02/24</b>	<p><b>Fare-Free Transit</b></p> <p>Kirschen, M., Pettine, A., Adams, M., &amp; Persaud, H. (2023). Fare-free transit evaluation framework. <i>Transit Cooperative Research Program</i>, TCRP Research Report 237.</p> <p>Cats, O., Susilo, Y. O., &amp; Reimal, T. (2017). The prospects of fare-free public transport: evidence from Tallinn. <i>Transportation</i>, 44(5), 1083-1104.</p> <p>King, H., &amp; Taylor, B. D. (2023). Considering Fare-Free Transit in The Context of Research on Transit Service and Pricing: A Research Synthesis. <i>UCLA: Institute of Transportation Studies</i>.</p> <p>Mendez, J. (2025). Advancing mobility through fare-free transit: Evidence from the Kansas City Metropolitan Area. <i>Transport Policy</i>, 103860.</p>
<b>W9</b> <b>03/03</b>	<p><b>Transit-Oriented Development (TOD)</b></p> <p>Sharma, S. N., &amp; Dehalwar, K. (2025). A Systematic Literature Review of Transit-Oriented Development to Assess Its Role in Economic Development of City. <i>Transportation in Developing Economies</i>, 11(2), 23.</p> <p>Bartholomew, K., &amp; Ewing, R. (2011). Hedonic price effects of pedestrian-and transit-oriented development. <i>Journal of Planning Literature</i>, 26(1), 18-34.</p> <p>Padeiro, M., Louro, A., &amp; Da Costa, N. M. (2019). Transit-oriented development and gentrification: a systematic review. <i>Transport Reviews</i>, 39(6), 733-754.</p> <p>Duncan, M. (2011). The impact of transit-oriented development on housing prices in San Diego, CA. <i>Urban studies</i>, 48(1), 101-127.</p>

## **COURSE POLICIES**

Building an inclusive learning environment requires us to work together to listen (reading carefully and reflecting in the online environment), and make room for all to have a say (asking questions and interacting in an encouraging way); to support each other to find our voice; and to recognize and anticipate a wide range of perspectives, backgrounds, experiences, identities, and ways of being in the world.

I hope that we can begin from a place of mutual respect and gentle personalism – taking each other where we are at each day, offering the benefit of the doubt, and being aware that the workings of power and privilege impact different communities and individuals in different ways. These are difficult times and we are all experiencing it in different ways - please be gentle with one another and do not make assumptions about what anyone is going through. We can all promote safe and inclusive learning by listening deeply (including reading carefully and reflecting) and being ready to learn from those around us.

In a hybrid/online learning environment, it is important to work to write clearly, thoughtfully, and respectfully (take your time and consider the impact of your words). Please learn and use the correct pronouns for your classmates, please do not make assumptions. I will work to support you in learning how to engage online in respectful and encouraging ways; begin from the knowledge that behind each comment and profile is a person who deserves to be treated with respect and care. The quality, thoughtfulness, and clarity of your posts will be considered in assessment.

### **Academic Misconduct Policy**

You are expected to display academic integrity and honesty. Academic dishonesty will not be tolerated. The PSU Student Code of Conduct defines academic dishonesty as follows:

(1) Academic dishonesty. Academic dishonesty is the act of knowingly or intentionally seeking to claim credit for the work or effort of another person or participation in such acts. This includes, but is not limited to: (a) cheating, (b) fraud, (c) plagiarism, such as word for word copying, using borrowed words or phrases from original text into new patterns without attribution, or paraphrasing another writer's ideas; (d) The buying or selling of all or any portion of course assignments and research papers; (e) Performing academic assignments (including tests and examinations) for other persons; (f) Unauthorized disclosure or receipt of academic information; (g) Falsification of research data; and (h) Unauthorized collaboration.

(<http://www.pdx.edu/dos/psu-student-code-conduct>)

Students are responsible for knowing both in-class behavior and rules governing use of materials in academic work. Any student found plagiarizing work or violating any part of PSU's academic integrity policy will receive a failing grade for the course.

Intellectual integrity forms the bedrock of academic communities and serves as the cornerstone for impartial evaluation of your work. All coursework completed and/or submitted for this course must represent your original work and adhere to the University's Academic Integrity Guidelines. Unauthorized collaboration or the use of ChatGPT or any other generative AI applications is strictly prohibited.

### **Recording Technology Notice**

We will use technology for virtual meetings and recordings in this course. Our use of such technology is governed by FERPA, the [Acceptable Use Policy](#) and PSU's [Student Code of Conduct](#). A record of all meetings and recordings is kept and stored by PSU, in accordance with the Acceptable Use Policy and FERPA. I will not share recordings of your class activities outside of course participants, which include your fellow students, TAs/GAs/Mentors, and any guest faculty or community-based learning partners that we may engage with. You may not make recordings of any part of this course without prior consent or share any recordings outside this course. Doing so may result in disciplinary action.

### **Access and Inclusion for Students with Disabilities**

PSU values diversity and inclusion; My goal is to create a learning environment that is accessible, equitable, inclusive, and welcoming. I am committed to fostering mutual respect and full participation for all students. If any aspects of instruction or course design result in barriers to your inclusion or learning, please notify me. Additionally, the Disability Resource Center (DRC) provides reasonable accommodations for students who

encounter barriers in the learning environment. The DRC works with students who have physical, learning, cognitive, mental health, sensory, and other disabilities.

If you have, or think you may have, a disability that may affect your work in this class and feel you need accommodations, contact the Disability Resource Center to schedule an appointment and initiate a conversation about reasonable accommodations. If you already have accommodations, please contact me to make sure that I have received your faculty notification letter from the DRC so we can discuss your accommodations.

The DRC is located in 116 Smith Memorial Student Union, Suite 116 (temporarily relocated to UCB400 through Winter 2026). You can also contact the DRC at 503-725-4150 or, [drc@pdx.edu](mailto:drc@pdx.edu). Visit the DRC online at <https://www.pdx.edu/disability-resource-center>.

### **Title IX Support and Resources**

[Title IX violations](#) and sexual misconduct under [PSU's Prohibited Discrimination and Harassment policy \(Interim\)](#) include gender/sex discrimination, sexual harassment, sexual assault or any other form of gender based violence. We all strive to build a community that treats others respectfully and with civility; however, we want to be sure that you are prepared if incidents occur.

Portland State is committed to providing an environment free of all forms of prohibited discrimination and sexual harassment (sexual assault, domestic and dating violence, and gender or sex-based harassment and stalking). If you have experienced any form of gender or sex-based discrimination or sexual harassment, know that help and support are available. Information about PSU's support services on campus, including confidential services and reporting options, can be found on PSU's Sexual Misconduct Prevention and Response website at: <http://www.pdx.edu/sexual-assault/get-help> or you may call a confidential IPV Advocate at 503-725-5672 or schedule Online at <https://psuwrc.youcanbook.me>. You may report any incident of discrimination or discriminatory harassment, including sexual harassment, to:

- PSU's Title IX Coordinator: Julie Caron by calling 503-725-4410, via email at [titleixcoordinator@pdx.edu](mailto:titleixcoordinator@pdx.edu) or in person at Richard and Maureen Neuberger Center (RMNC), 1600 SW 4th Ave, Suite 830
- Deputy Title IX Coordinator: Yesenia Gutierrez by calling 503-725-4413, via email at [yesenia.gutierrez.gdi@pdx.edu](mailto:yesenia.gutierrez.gdi@pdx.edu) or in person at RMNC, 1600 SW 4th Ave, Suite 830

Please be aware that all PSU faculty members and instructors are required to report information of an incident that may constitute prohibited discrimination, including sexual harassment and sexual violence. This means that if you tell me about a situation of sexual harassment or sexual violence that may have violated university policy or student code of conduct, I have to share the information with my supervisor, the University's Title IX Coordinator or the Office of the Dean of Student Life. However, the Title IX Coordinators will keep the information confidential and refer you to a confidential advocate. For more information about Title IX please complete the required student module *Creating a Safe Campus* in your Canvas.

### **Discrimination and Bias Incidents**

[The Office of Equity and Compliance](#) (OEC) addresses complaints of discrimination, discriminatory Harassment, and sexual harassment against employees (faculty and staff). If you or someone you know believes they have been discriminated against, you may file a complaint. Someone from the OEC will contact you to discuss how to best address your complaint.

[The Bias Review Team](#) (BRT) gathers information on bias incidents that happen on and around campus, and gives resources and support to individuals who experience them. You can report a bias incident you experienced or learned about. A member of the BRT will contact you if you indicate you would like to be contacted.

**TSUSP Conduct and Community Standards Reporting** - Students who have concerns about incidents happening within USP classes or in other PSU-sanctioned spaces related to TSUSP programs may submit confidential reports to the TSUSP School Director [using this form](#). All reports received are logged, and depending on the nature of the incident, follow-up with the impacted student(s) takes place.