USP 537 ECONOMICS OF URBAN TRANSPORTATION – WINTER 2017

Professor: Jenny H. Liu, Ph.D.
Office: URB 370F
Email: jenny.liu@pdx.edu
OH: TR 12pm – 1pm and by appointment
Class Time: TR 1pm – 3:40pm @ URB220
Course Website: http://d2l.pdx.edu

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:CP7118834700001451)
- 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 Objective
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 focus primarily on the application of economics to urban transportation policy and planning. We will examine the supply and demand of transportation markets, the costs and pricing of transportation systems, transportation investment decisions and the regulation/deregulation of such systems.

Grading & Exams

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<tr>
<th></th>
<th>Date</th>
<th>Time</th>
<th>Option #1</th>
<th>Option #2</th>
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<tbody>
<tr>
<td>Midterm Exam</td>
<td>02/23 (TR)</td>
<td>1:00pm – 2:30pm</td>
<td>10%</td>
<td>20%</td>
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<tr>
<td>Final Exam (online)</td>
<td>03/23 (TR)</td>
<td>Before noon</td>
<td>15%</td>
<td>30%</td>
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<tr>
<td>Problem Sets</td>
<td>Various</td>
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<td>20%</td>
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<td>Class Participation</td>
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<tr>
<td>Research Paper</td>
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Your grade will be based on your performance on the exams, problem sets, class participation and research paper (optional). Exam dates are indicated in the above table. Other due dates are listed in the course calendar below. Makeup exams will NOT be given unless there are extenuating circumstances and arranged well in advance with the instructor.

### Problem Sets

Problem sets will be posted on the class website and may consist of quantitative, graphing, qualitative problems as well as short answer questions. Each problem set will be counted equally. They need to be turned in at the beginning of class on the due dates (email submissions will NOT be accepted). LATE submissions will NOT be accepted, but you will get to DROP YOUR LOWEST PROBLEM SET SCORE. Problem sets 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 problem set).

### Class Participation

Each student is required to participate in class through listening, adequately preparing for class, providing quality contributions and actively participating in discussions. In addition, you are required to lead one discussion session on an assigned case study topic as part of a group, and to individually present on a transportation finance topic during Week 10 (03/16). For these activities, you will be graded on content, organization and communication. Please upload your presentation file to Dropbox before class begins.

1. **Case Studies (15%)**
   - **Session leader group:** Your group will need to prepare a 15-20 minute presentation to introduce the case study topic, and facilitate discussion (about 10-15 minutes) of the main points in the reading. The group should be prepared with at least 10 discussion questions. The discussion/presentation may be supplemented with additional sources if you wish.
   - **Rest of class:** In order to constructively engage in discussion, you are required to read one of the assigned papers, and prepare a list of at least 3 key points learned and 3 thoughtful discussion questions on the topic. These learning points and questions should be posted on the discussion board of D2L before class begins.

2. **Financing Transportation (10%)**
   You will be assigned two types of transportation finance instruments. In a 15-minute presentation, you are expected to introduce the financial instrument, provide examples of its usage in cities around the world, and analyze its economic efficiency, effectiveness, equity and feasibility.
## Case Study Discussion Schedule

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<th>Date</th>
<th>Paper Titles</th>
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| **W4 02/02** | **Bus Rapid Transit**  
| **W5 02/09** | **Parking**  
| **W6 02/16** | **Fuel Economy Standards**  
| **W8 03/02** | **Congestion Charge**  
| **W9 03/09** | **Externalities in Transportation**  
USP 537 Course Calendar

I. Introduction & Microeconomic Foundations - Week 1 (01/12) & Week 2 (01/19)

No class on Week 1 (01/12) – independent reading and review of case study topics.

- [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”

II. Demand for Transportation - Week 3 (01/26) & Week 4 (02/02)

Due: Problem Set #1 (01/26)

- [GTW] Chap 2 – “The Demand for Transportation: Models and Applications”
- [GTW] Chap 10 – “Determinants of Motorization and Road Provision”
- [GTW] Chap 13 – “Accessibility and Economic Opportunity”

III. Transportation, Land Use and Accessibility – Week 5 (02/09) & Week 6 (02/16)

Due: Problem Set #2 (02/09)

- [GTW] Chap 12 – “Transportation and Land Use”

IV. Project Evaluation – Week 7 (02/23) & Week 8 (03/02)

***Midterm Exam (02/23) @ 1:00pm – 2:30pm***

Due: Research Paper Proposal (03/02) – Optional

- [GTW] Chap 5 – “Project Evaluation”

V. Supply and Pricing of Transportation – Week 8 (03/02) & Week 9 (03/09)

Due: Problem Set #3 (03/02)

- [GTW] Chap 3 – “Learning about Transport Costs”
- [GTW] Chap 4 – “Pricing”


**VI. Financing Transportation Infrastructure – Week 10 (03/16)**


**Final Exam – Online final exam due on 03/23 TR @ noon**

**Due: Research Paper (03/23 before noon) - Optional**

**POLICIES**

**Affirmative Action**

Portland State University supports equal opportunity for all, regardless of age, color, disability, marital status, national origin, race, religion or creed, sex or gender, sexual or gender identity, sexual orientation, veteran status, or any other basis in law.

**Academic Misconduct Policy**

You are expected to display academic integrity and honesty. Cheating, fraud or plagiarism will be dealt with according to the Portland State Student Code of Conduct (http://www.pdx.edu/dos/codeofconduct), which could lead to failing the course or expulsion from the University.

**ADA Accommodation**

Students with accommodations approved through the Disability Resource Center are responsible for contacting the faculty member prior to, or during, the first week of term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval should contact the DRC immediately.

**Calendar/Schedule**

Course calendar is tentative and is subject to change as the instructor deems appropriate. Please check online for any updates.
Research Paper Requirements (Option #1)
If you choose grading Option #1, you are required to turn in a research paper reviewing the literature on an urban transportation topic where there is continuing disagreement relating to economic issues. You will be required to present the conflicting arguments and then evaluate the positions being taken. You will be expected to find a minimum of four to five professional articles of reasonably recent vintage that contribute to the debate, and use these as the basis for your paper. Note that the articles are intended to be mostly research articles in the scholarly literature. This excludes newspaper articles and opinion pieces, and it also excludes many professional articles that simply describe a case study or something similar. In general, most articles should be based on some form of research. You should strive to identify the underlying causes of disagreement, but at the very least you should carefully document what the disagreement is and what arguments each side makes.

All students should plan to use some scholarly literature search procedure. A number of databases are available through the library on the Internet. For example, you may want to use ECONLIT for economics articles or TRIS for a transportation focus. However, you are free to use any reasonable search procedure that focuses on scholarly articles. Topics are open, but the following are some examples:

- Congestion pricing: compare and contrast area pricing (e.g., London), road pricing, (e.g., SR91), and distance pricing (e.g., Puget Sound)
- How do land use policies affect transportation patterns or mode choice?
- What are the primary causes of rising transit cost?
- Does privatization lower the cost of transit?
- Is transit ridership rising or declining?
- Does suburbanization affect walking?
- What cost shares are paid by users of transit and/or automobiles?
- Do heavy vehicles pay too much or too little in road fees?
- Light rail versus bus rapid transit
- Does taxi de-regulation lower cost?
- Is demand management effective?
- Do lower speed limits increase safety?
- Does traffic light pre-emption for buses improve traffic flow?
- How do tolls and road pricing affect the equity of transportation funding?

○ Research paper proposal (due 03/02 by 1pm): 1-2 page written statement of the issue for your paper along with a description of the literature search procedure used and a (preliminary) listing of the articles that you plan to use for the paper.
○ Final paper (due 03/23 before noon): Your research paper should be between 10 to 15 pages long not including tables, figures or bibliography.
○ Sources must be cited in a standard bibliography or footnote format (e.g., APA or Chicago style).
○ Formatting: Times New Roman 12-point font, single-spaced, 1-inch margins
○ Each assignment must be turned in as a PDF file into the Dropbox on D2L.