

SYLLABUS

TRAN 610: Transportation Economics

Fall 2017

This course introduces the principles of engineering economy and their applications to the cost and benefit analysis of transportation systems. Co-listed with IE 610, this course demonstrates how to conduct economic comparisons and evaluations of multimodal transportation facilities. It also teaches financing approaches, tax allocation theory and approaches to program highway and public transit improvements.

Meeting Time:

6:00 – 9:05 PM, Tuesday

Meeting Location:

FMH 307

Instructor:

Dr. R. Liu
Office: 217 Colton Hall
Phone Number: 5884

Office Hours:

2-5 PM, Tuesday or by appointment

Text Book:

Patrick S. McCarthy, Transportation Economics, Theory and Practice: A Case Study Approach. Blackwell Publishers, 2001.
ISBN: 978-0-631-22180-790000

Course Contents

1. Introduction: Transportation Activities
2. The Statistical Analysis of Economic Relations
3. Transportation Demand – The Divisible Goods Case
4. Transportation Demand – The Discrete Good Case

5. Firm Production and Cost in Transportation – The Long Run
6. Firm Production and Cost in Transportation – The Short Run
7. Competition, Concentration, and Market Power in Transportation
8. Regulation, Deregulation, and Efficiency in Transportation
9. Transportation Investment
10. Welfare Effects of Public-Sector Pricing and Investment
11. Congestion Pricing
12. Transportation and Land Use in Urban Areas
13. Public Health Effects of Transportation

Grade Policy:

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|---------------------------|-----|
| 1. Home Work | 30% |
| 2. Class Participation | 10% |
| 3. Mid-term Paper/Project | 20% |
| 4. Project Presentation | 10% |
| 5. Final Project Report | 30% |

Class Schedule

ID	Date	Contents	Assignment
1	9/5	Introduction/Transportation Activities	Get Text Book
2	9/12	The Statistical Analysis of Economic Relations	
3	9/19	Transportation Demand – The Divisible Goods Case and Discrete Good Case	HW01 Out
4	9/26	Firm Production and Cost in Transportation – The Long and Short Run	HW01 Due
5	10/3	Competition, Concentration, and Market Power in Transportation	
6	10/10	Regulation, Deregulation, and Efficiency in Transportation	HW02 Out
7	10/17	Transportation Investment	HW02 Due
8	10/24	Field Trip or Invited Speaker	
9	10/31	Welfare Effects of Public-Sector Pricing and Investment	Midterm Out
10	11/7	Congestion Pricing	Midterm due
11	11/14	Transportation and Land Use in Urban Areas	
12	11/21	No Class, Th schedule	Final Assignment
13	11/28	Public Health Effects of Transportation	
14	12/5	Final Proposal/Presentation	Presentation
15	12/12	Q and A Session	
16	12/19	Final Due	Final Due
17	12/23	Final Grade Due to Registrar	