

Transportation Economics

Spring 2016

ECON 4430
Cross-listed with ECON 6341

Tuesday and Thursday 4:35 p.m. - 5:55 p.m.

Instructor:	<i>Patrick McCarthy</i>
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Office Hours:	<i>Tuesday, Thursday 9:00 – 10:20</i>
Course Webpage:	<i>Important announcements and assignments will be posted on the t-square site set up for this course. All students must have access to the site and check it regularly.</i>
Course GTA:	<i>Ms. Carrie Zhe</i>

Course Overview

This course examines the economic, business, and public policy issues related to the transportation industry. The aim of the course is twofold: first, to provide you with the fundamentals of transport demand, private and social transport costs, market structures, competition, and efficient pricing and investment in transportation markets; and second, to demonstrate the rationale and the effects of alternative public policies and business strategies in the transport sector which provide insights on the transportation industry in historical and future contexts.

There is no required textbook in this course. Instead we will draw upon chapters from my book, a series of papers, articles and chapters from edited volumes. Some of these reading materials are available on the internet. Articles in most journals are available in electronic format through Georgia Tech library. Those readings that are not available on the Web or through the library's database of electronic journals will be placed on reserve.

Classes are lecture-based but with the expectation of lots of discussion. This is an advantage of a smaller class size. Throughout the course, we will review the scope and breadth of transportation economics and public policy and develop the relevant economic theory that underlie the readings. The course uses many of the economic principles that you have learned in other courses, builds upon these, and introduces new concepts which help us understand transport markets, business strategies, and public policy. Overall, the course will have a reasonable pace.

Paper Requirement

ECON 4430 – UG student groups are required to write a paper for this course and to give a class presentation of the paper. You will be assigned a topic for the project. The length of the paper must be **15 – 20 pages**, 1.5” spacing, 1” margins on all sides, page numbers centered at the bottom. This paper does NOT REQUIRE an econometric analysis.

ECON 6431 Crosslist – MS students in the course are required to write a paper and to give a class presentation of the paper. You will be assigned a topic for the project. The length of the paper must be **18 – 22 pages**, 1.5” spacing, 1” margins on all sides, page numbers centered at the bottom. This paper **REQUIRES** an econometric analysis of data that you have collected and analyzed.

During the last week of classes, your group make a presentation of your assigned project in the class. The paper is due on the last instructional day of the semester, **April 26**.

Grades will be based upon the following items:

- class participation (15%)
- two mid-term exams (20% each)
- presentation of the group project (10%)
- group paper (25%)
- average peer-assessment of team members (10%)

Attendance in class is required. Students are responsible for all class lectures and required readings and are expected to have read the required materials before the beginning of each class.

If you are taking the class pass/fail, you need to attend the class regularly, take both Midterms, submit the research paper and the case reports, take part in the case discussions, and obtain a ‘C’ in the class to get a satisfactory grade.

GT Academic Honor Code – Each student in the class has the responsibility to follow GT’s Academic Honor Code of conduct and to help others in the class do so. Information on GT’s Academic Honor Code can be found at <http://www.honor.gatech.edu/index.php> .

Key Dates

February 11	Review for Exam 1
February 16	Exam 1
February 23	Project Discussion
March 3	Project Discussion
March 22, 24	Spring Break
April 5	Review for Exam 2
April 7	Exam 2
April 19, 22, 26	Presentations

Class Reading Assignments (Subject to change)

Week	Dates	Reading assignments
	January 12	Introduction
	January 14	Transport Industry Overview
1		<u>OECD</u>. International Transport Forum. 2012. "Trends in the Transport Sector: 1970-2009". http://www.oecd-ilibrary.org/prx.library.gatech.edu/ <u>US DOT</u>. 2008. "Transportation Vision for 2030", January 2008. On Reserve. <u>US DOT</u>. , RITA, Bureau of Transportation Stations. 2013. "2015 Pocket Guide to Transportation".http://www.rita.dot.gov/bts/sites/rita.dot.gov/bts/files/publications/pocket_guide_to_transportation/index.html Wikipedia, US Federal Transportation Legislation, https://en.wikipedia.org/wiki/Category:United_States_federal_transportation_legislation
		Correlation and Regression Analysis
2	January 19	<u>Bellemare, Marc</u>. "A Primer on Regression Analysis". marcfbellemare.com/wordpress/wp-content/uploads/2012/08/Regression.pdf
	January 21	<u>Stockwell, Ian</u>. 2008. "Introduction to Correlation and Regression Analysis". www2.sas.com/proceedings/forum2008/364-2008.pdf
		Transport Demand
3	January 26	<u>McCarthy, P</u>. 2001. <i>Transportation Economics: Theory and Practice</i> . Chapters 3 and 4. Malden, MA: Blackwell Publishers, Inc. On Reserve.
	January 28	<u>McCarthy, P</u>. 2001. <i>Transportation Economics: Theory and Practice</i> . Chapters 3 and 4. Malden, MA: Blackwell Publishers, Inc. On Reserve.

Week	Dates	Reading assignments
		Transport Demand
	February 2	<u>Small, K. and Winston, C.</u> 1999. 'The Demand for Transportation: Models and Applications', Chapter 2 in Gomez-Ibanez, J., Tye, W. B., and Winston, C. (Eds.), <i>Essays in Transportation Economics and Policy: A Handbook in Honor of John R. Meyer</i> . Washington DC: Brookings Institution Press. On Reserve.
4		<u>Oum, Tae Hoon et al.</u> (Eds.). 1995. <i>Transport Economics: Selected Readings</i> . Chapters 1, 3. Korea Research Foundation for the 21st Century. On Reserve.
		Transport Costs
	February 4	<u>McCarthy, P.</u> 2001. <i>Transportation Economics: Theory and Practice</i> . Chapters 3 and 4. Malden, MA: Blackwell Publishers, Inc. On Reserve.
	February 9	<u>McCarthy, P.</u> 2001. <i>Transportation Economics: Theory and Practice</i> . Chapters 3 and 4. Malden, MA: Blackwell Publishers, Inc. On Reserve.
5		<u>Braeutigam, R. R.</u> 1999. 'Learning about Transport Costs', Chapter 3 in Gomez-Ibanez, J., Tye, W. B., and Winston, C. (Eds.), <i>Essays in Transportation Economics and Policy: A Handbook in Honor of John R. Meyer</i> . Washington DC: Brookings Institution Press. On Reserve.
	February 11	Review for Exam 1
	February 16	Exam 1
6	February 18	Markets and Market Structures
		<u>McCarthy, P.</u> 2001. <i>Transportation Economics: Theory and Practice</i> . Chapter 7. Malden, MA: Blackwell Publishers, Inc. On Reserve.

Week	Dates	Reading assignments
7	February 23	Project Discussion
	February 25	Market Structure Topics I - Trade <u>McCarthy, P.</u> pp. 251-58. <u>Hummels, D.</u> 2009. "Trends in Asian Trade: Implications for a transport infrastructure and trade costs". Chapter 2 in Brooks, D. and Hummels, D. (Eds.). <i>Infrastructure's Role in Lowering Asia's Trade Costs: Building for Trade</i> . Cheltenham, UK: Edward Elgar.
8	March 1	Market Structure Topics II - Contestability <u>McCarthy, P.</u> , pp. 278-283) <u>Morrison, S. and Winston, C.</u> 1987, "Empirical Implications and Tests of The Contestability Hypothesis", <i>Journal of Law and Economics</i> XXX, 53-66.
	March 3	Project Discussion
9	March 8	Market Structure Topics III - Deregulation <u>Winston, Clifford.</u> "U.S. Industry Adjustment to Economic Deregulation." <i>Journal of Economic Perspectives</i> 12, no. 3 (1998): 89-110. Library e-journal.
	March 10	<u>Winston, C.</u> 2012. "Government Policy for a Partially Deregulated Industry: Deregulate it Fully." <i>American Economic Review</i> 102, 391-395. Library e-journal. Market Structure Topics IV - Regulation <u>Winston, C.</u> , "Government Failure in Urban Transportation." <i>Fiscal Studies</i> 21, no. 4 (2000): 403-425. Library e-journal.
10	March 15	Net Present Value and Investment <u>McCarthy, P.</u> 2001. <i>Transportation Economics: Theory and Practice</i> . Chapters 8 and Chapters 9, pp. 355-372. Malden, MA: Blackwell Publishers, Inc. On Reserve.
	March 17	High Speed Rail Investment De Rus, G. 2011. "The BCA of HSR: Should the Government Invest in High Speed Rail Infrastructures", <i>Journal of Benefit-Cost Analysis</i> 2, 1-28. Library e-journal.

Week	Dates	Reading assignments
11	March 22	Spring Break
	March 24	Spring Break
12	March 29	Public Sector Pricing <u>McCarthy, P.</u> , 2001. Public sector pricing (Chapter 10).
	March 31	Efficient Pricing and Investment <u>Small, K. and C. Winston.</u> 1986. "Welfare Effects of Marginal-Cost Taxation of Motor Freight Transportation". In <i>Studies in State and Local Public Finance</i> . Edited by Harvey Rosen, 113-128. On Reserve. <u>Winston, C.</u> 1991. "Efficient Transportation Infrastructure Policy". <i>Journal of Economic Perspectives</i> 5, 113-27.
13	April 5	Review for Exam 2
	April 7	Exam 2
14	April 12	Externalities <u>Congestion</u> <u>McCarthy, P.</u> 2001, Chapter 11. <u>Santos, G. and E. Verhoef.</u> "Road congestion pricing". Chapter 23 in A Handbook of Transport Economics edited by de Palma, A. et al. Northampton, MA.: Edward Elgar, p. 561-562, 568-577. On Reserve.
	April 14	<u>Safety</u> <u>McCarthy, P.</u> 2001, Chapter 13. Parry, I. et al. 2007. "Automobile Externalities and Policies", <i>Journal of Economic Literature</i> XLV, 373-99.
15	April 19	Presentation
	April 21	Presentation
16	April '26	Presentation Paper Due