

## COURSE OUTLINE

### (1) GENERAL

SCHOOL	Business School		
ACADEMIC UNIT	Department of Shipping, Trade & Transportation		
LEVEL OF STUDIES	Graduate		
COURSE CODE	OI0800	SEMESTER	3 <sup>rd</sup>
COURSE TITLE	Transportation Economics		
INDEPENDENT TEACHING ACTIVITIES	WEEKLY TEACHING HOURS	CREDITS	
	3	5	
COURSE TYPE	SUBJECT AREA COURSE		
PREREQUISITE COURSES:	Not Applicable		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes, if there is interest		
COURSE WEBSITE (URL)	<a href="https://eclass.aegean.gr/courses/TNEY218/">https://eclass.aegean.gr/courses/TNEY218/</a>		

### (2) LEARNING OUTCOMES

<b>Learning outcomes</b>
<p>The course aims at the analysis of the characteristics and determination of transport demand and supply, transport cost structures (costs of infrastructure and operation, user costs, resource costs), pricing and resource allocation (social pricing, externalities, commercial pricing), cost benefit analysis principles and methods, transport regulation and ownership.</p> <p>Learning outcome: After completing this course, students should be able to understand the implication of the above to the transport industry structure and market performance.</p>
<b>General Competences</b>
<p>The course aims to develop the following general competencies:</p> <ul style="list-style-type: none"> <li>• Analyze and synthesize data using new technologies and specialized analysis tools</li> <li>• Flexibility and adaptability to new situations</li> <li>• Autonomous work</li> <li>• Teamwork and interaction with partners</li> <li>• Internationalization of quality standards</li> <li>• Promote free, creative and inductive thinking</li> </ul>

### (3) SYLLABUS

<p>It is an introductory course to the fundamentals of transport economics. It includes the characteristics and determination of transport demand and supply, transport cost structures (costs of infrastructure and operation, user costs, resource costs), pricing and resource allocation (social pricing, externalities, commercial pricing), cost benefit analysis principles and methods, transport regulation and ownership.</p>
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(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY.	Lectures, work assignments and remedial courses.	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	Use is made of the asynchronous e-Class platform and e-mail communication. Specialized tools, licensed for educational purposes or freely available, are also employed.	
TEACHING METHODS	<i>Activity</i>	<i>Semester workload</i>
	Lectures	39
	Work assignments	40
	Remedial courses	10
	Literature study & analysis	60
	Course total	<i>149</i>
STUDENT PERFORMANCE EVALUATION	<p>Student evaluation is done through:</p> <ul style="list-style-type: none"> <li>• Written examination at the end of the semester</li> <li>• Scoring of the work assignments</li> <li>• Oral examination (if necessary)</li> </ul> <p>The language of examination is Greek unless students are attending from the ERASMUS program, so the test is taken in English.</p>	

## (5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

Students have to decide upon using one of the following basic textbooks:

- Samprakos E. (2001), Introduction to Transport Economics, (in Greek)
- Mourmouris I. (2006), Transport Economics, (in Greek).
- Profyllidis B. (2006), Transport Economics, (in Greek).

The following main literature is also suggested:

- Blauwens, G., De Baere, P., and Van de Voorde, E. Transport Economics. Fifth Edition, Uitgeverij De Boeck, Antwerp, 2012.
- Boyer, K.D., Principles of Transportation Economics, Reading, Mass: Addison Wesley Longman, 1998.
- Button, K.J., Transport Economics, Edward Elgar, 1993.
- Winston, C., "Conceptual developments in the economics of transportation: An interpretive survey", Journal of Economic Literature XVIII(1), 1985, 57-94.
- Quinet, E. and R. Vickerman (2004), Principles of Transport Economics, Cheltenham and Northampton, Mass: Edward Elgar.
- Small, K.A. and E.T. Verhoef (2007), The Economics of Urban Transportation, Second Edition, London and New York: Routledge.

Besides the main literature students are encouraged to go through a series of readings, given below by thematic category.

*Important readings are marked with an asterisk (\*).*

### **I. Introduction**

- \* Blauwens, part I
- \* Boyer, chapter 1
- \* Button, chapter 1, section 2.1.
- \* Winston, 57-61.
- Small and Verhoef (2007), chapter 1.
- Quinet and Vickerman, chapter 1.

### **II. Transport Demand**

#### *α. Overall*

- \* Blauwens, part III
- \* Boyer, chapter 2-4
- \* Button, chapter 3 (ignore section 3.5).
- \* Winston, 69-78.
- \* Small and Verhoef (2007), chapter 2.
- Quinet and Vickerman, chapter 4.
- De Palma, A., R. Lindsey and N. Picard (2006), "Urban passenger travel demand", in R. Arnott and D. MacMillen (eds.), The Blackwell Companion to Urban Economics, Oxford: Blackwell Publishing, Chapter 16, 261-280 (section 3 can be ignored).
- Oum, T.H., W.G. Waters II and J-S. Yong (1992), "Concepts of price elasticities of transport demand and recent empirical estimates: an interpretative survey", Journal of Transport Economics and Policy 26(2), 139-154 and 164-169.
- Graham, D.J. and S. Glaister (2002), "The demand for automobile fuel: a survey of elasticities", Journal of Transport Economics and Policy 36, 1-25.
- Brons, M., E. Pels, P. Nijkamp and P. Rietveld (2002), "Price elasticities of demand for passenger air travel: A meta-analysis", Journal of Air Transport Management 8(3), 165-175.
- Victoria Transport Policy Institute, "Transportation elasticities: How prices and other factors affect travel behavior, TDM Encyclopedia (<http://www.vtpi.org/tdm/tdm11.htm>)

- Wardman, Mark (2001), "A review of British evidence on time and service quality valuations", *Transportation Research* 37E, 107-128.
- Redmond, L.S. and P.L. Mokhtarian (2001), "The positive utility of the commute: modeling ideal commute time and relative desired commute", *Transportation* 28(2), 179-205.
- Richardson, A.J. (2003), "Some evidence of travelers with zero value of time", *Transportation Research Record* 1854, 107-113.
- Mokhtarian, P.L. and I. Salomon (2001), "How derived is the demand for travel? Some conceptual and measurement considerations", *Transportation Research A* 35A, 695-719.

#### *β. Mode Choice and Public Transport*

- Small, K.A. and J.A. Gomez-Ibanez (1999), "Urban transportation", in P. Cheshire and E.S. Mills (eds.), *Handbook of Regional and Urban Economics* 3, Amsterdam: North-Holland, Sect. 5.
- Pucher, J. (2002), "Renaissance of public transport in the United States?", *Transportation Quarterly* 56(1), 33-49.
- O'Sullivan, A. (2007), *Urban Economics*, 6th edition, Boston: McGraw-Hill Irwin, Chapter 12.

### **III. Transport Costs**

- \* Blauwens, part II
- \* Boyer, chapter 5-8
- \* Winston, 61-69.
- Small and Verhoef (2007), chapter 3.
- Quinet and Vickerman, chapter 5.
- Braeutigam, R.R. (1999), "Learning about transport costs", Chapter 3 in Gomez-Ibanez, J.A., W.B. Tye and C. Winston, eds., (1999), *Essays in Transportation Economics and Policy: A Handbook in Honor of John R. Meyer*, Brookings Institution, 57-98.
- Caves, D.W., L.R. Christensen and M.W. Tretheway (1984), "Economies of density versus economies of scale: Why trunk and local service airline costs differ", *Rand Journal of Economics* 15(4), 471-489.
- Small, K.A., C. Winston and C.A. Evans (1989), *Road Work*, Washington D.C.: Brookings.

### **IV. External Costs and Pricing**

#### *α. Overall*

- \* Blauwens, part II and IV
- \* Boyer, chapter 10.
- \* Arnott, R. and K.A. Small (1994), "The economics of traffic congestion", *American Scientist* 82, Sept.-Oct., 446-455.
- Winston, 78-81.
- Small and Verhoef (2007), chapter 4.
- Parry, I.W.H., M. Walls and W. Harrington (2007), "Automobile externalities and policies", *Journal of Economic Literature* 45, 373-399.
- Small, K.A. and J.A. Gomez-Ibanez (1999), "Urban transportation", in P. Cheshire and E.S. Mills (eds.), *Handbook of Regional and Urban Economics* 3, Amsterdam: North-Holland, Sect. 2.
- De Palma, A. and R. Lindsey (2000), "Transportation: Supply and congestion", *International Encyclopedia of the Social & Behavioral Sciences*, N.J. Smelser and P.B. Baltes (eds.), Oxford: Pergamon, Vol. 23, 2001, 15882-8.
- O'Sullivan, A. (2007), *Urban Economics*, 6th edition, Boston: McGraw-Hill Irwin, Chapter 11.
- Lindsey, R. (2006), "Do economists reach a conclusion on highway pricing?: The intellectual history of an idea", *Econ Journal Watch* 3(2), May, 292-379 (<http://www.econjournalwatch.org>).
- Lindsey, R. (2007), "Congestion relief: Assessing the case for road tolls in Canada", *C.D. Howe Institute Commentary* 248, May 2007 (<http://www.cdhowe.org>).
- Parry, I.W.H. (2008), "Pricing urban congestion", *Resources for the Future*, Discussion Paper 08-35.

#### *β. Investment appraisal and Infrastructure Pricing*

- \* Winston, C. (1991), "Efficient transportation infrastructure policy", Journal of Economic Perspectives 5(1), Winter, 113-127.
- Small and Verhoef (2007), chapter 5.
- Small, K.A., C. Winston and C.A. Evans (1989), Road Work, Washington D.C.: Brookings.
- The Van Horne Institute (2004), "Calgary/Edmonton High-Speed Rail: An Integrated Region", Pre-Feasibility Study, October (<http://www.vanhorne.info/publications>).

- *Related academic journals:*

- Research in Transportation Economics
- Journal of Transport Economics and Policy
- Environmental and Resource Economics
- Transportation Research: Parts A: Policy and Practice
- Transportation Research: Parts D: Transport and Environment
- International Journal of Sustainable Transportation
- Transportation Planning and Technology
- Transportation Research Record
- Transport Policy
- Journal of European Transport
- Transportation Science
- Transport Reviews
- Research in Transportation Business and Management