

## **Module Title: TRANSPORT ECONOMICS**

- **Type of Module:**

ΓΕ0005	Compulsory
--------	------------

- **Level of Module**

*Postgraduate*

- **Year of Study**

MASTER'S
----------

- **Semester**

Spring Semester 3 <sup>rd</sup> Semester
--

- **Number of credits allocated**

3
---

- **Name of lecturer / lecturers : Costas Panou**

- **Description:**

It is an advanced course to 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.

After completing this course, students should be able to understand the implication of the above to the transport industry structure and market performance.

**Prerequisites:** N/A

### **Module Contents (Syllabus):**

It is an advanced course to the notions 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.

After completing this course, students should be able to understand the implication of the above to the transport industry structure and market performance.

### **Language of instruction / Γλώσσα διδασκαλίας**

Greek

### **Name and contact info of lecturer / Στοιχεία διδάσκοντα**

Name: Costas Panou  
Position: Assistant Professor  
Office location: Korais building, Rm. 1.5

---

Office hours: Wed 11:00-14:00, Thu 11:00-12:00 or by appointment  
Tel: +30 22710 35249  
Email: [panou@aegean.gr](mailto:panou@aegean.gr)

---

### **Expected learning outcomes / Μαθησιακοί στόχοι**

#### Learning Objectives

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.

#### 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.

### **Mode of delivery and teaching methods / Είδος μαθήματος και διδακτική μέθοδος**

Lectures, work assignments and remedial courses.

Students will form teams to complete their assignments at the end of the course. Remedial courses will be delivered to assist in concluding the assignments.

### **Compulsory & recommended reading / Υποχρεωτική & Συνιστώμενη βιβλιογραφία**

Students are suggested the following main literature:

1. Blauwens, G., De Baere, P., and Van de Voorde, E. Transport Economics. Fifth Edition, Uitgeverij De Boeck, Antwerp, 2012.
2. Boyer, K.D., Principles of Transportation Economics, Reading, Mass: Addison Wesley Longman, 1998.
3. Button, K.J., Transport Economics, Edward Elgar, 1993.
4. Winston, C., "Conceptual developments in the economics of transportation: An interpretive survey", Journal of Economic Literature XVIII(1), 1985, 57-94.
5. Quinet, E. and R. Vickerman (2004), Principles of Transport Economics, Cheltenham and Northampton, Mass: Edward Elgar.
6. 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

### *a. 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

##### *a. 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>).

#### **Assessment methods & criteria / Μέθοδος & κριτήρια αξιολόγησης**

The final course mark results from the weighted summation of the student’s mark in the following teaching components.

Teaching Component	Date	Weight
--------------------	------	--------

---

Assignment 1	Last teaching week	50%
Final Examination	Examination period	50%

-----

---