FAH3461 Transport and Economics 7.5 credits

Samhällsekonomi och transporter

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for FAH3461 valid from Spring 2013

Grading scale

G

Education cycle

Third cycle

Specific prerequisites

Advanced Transport Modelling, Discrete Choice Econometrics, or similar

Transport Policy and Evaluation or course in Microeconomics

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After completing the course the student should be able to

- choose and use relevant concepts and tools of microeconomics for research topics in the field of transport economics including regulations, externalities, and pricing
- use methods to analyze real-world problems in transportation planning and policy-making
- use methods used in transport engineering and other disciplines, including models for traffic assignment and travel demand
- relate sustainability goals and measures to relevant concepts and methods in economics
- apply theoretical constructs to derive cost-benefit rules
- use cost-benefit analysis to evaluate transport investments and policy measures, and value the strengths and weaknesses of applied cost benefit analysis
- discuss how transport pricing is affected by externalities and cost structures
- axiomatic neoclassical approach, and fundamental assumptions of welfare economics in relation to the field of transport

Course contents

The course will cover analysis of transport pricing, economic valuation of non-market goods such as travel time and reliability, social cost-benefit analysis of transport investments and policy measures, and transport externalities such as congestion and emissions. Emphasis is on the use of analytical techniques to study real-world urban transportation problems and policy-making.

- Value of time, theoretical derivation and applied econometric methods
- Travel time reliability and variability, theory and applied econometric methods, and unresolved issues
- Congestion and road pricing
- Valuation and pricing of externalities
- Subsidization of public transport
- Welfare economics
- Principles for applied cost benefit analysis

Course literature

Eliasson, J., CBA walk through, Kompendium

Small, K.A., and Verhoef, E.T., 2007, The Economics of Urban Transportation, Second Edition.

Hensher, D.A., and Button, K.J., 2000, Handbook of Transport Modelling, Elsevier.

Winston, C., "Conceptual developments in the economics of transportation: An interpretive

survey", Journal of Economic Literature XVIII(1), 1985, 57-94.

Button, K.J., 2010, Transport Economics, third edition Edward Elgar, Cheltenham, UD, Northampton, Mass. 2010.

Quinet, E. and R. Vickerman (2004), Principles of Transport Economics, Cheltenham and Northampton, Mass: Edward Elgar

Selected paper

Examination

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

P/F

Other requirements for final grade

Term paper 4.0 Credits

Written exam 3.5 Credits

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.