AH2301 Transport Policy and Evaluation 7.5 credits

Transportpolicy och utvärdering

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

Establishment

Course syllabus for AH2301 valid from Spring 2015

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

The Built Environment

Specific prerequisites

For admitted students to the Master of Science in Civil Engineering and Urban Management (CSAMH) or the Master of Science in Transport and Geoinformation Technology (TTGTM), there are no additional requirements.

For other students:

- A completed bachelor's degree in civil engineering, urban planning, geomatics, geography, engineering physics, computer science, statistics, economics, and/or mathematics, including at least 6 university credits (hp) in each of the following or their equivalents: Linear Algebra, Calculus in One Variable, and Probability & Statistics; and

- English language proficiency equivalent to (the Swedish upper secondary school) English course B/6.

Language of instruction

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

Intended learning outcomes

After the course you should be able to:

- identify relevant policy measures and strategies to address transport oriented problems and discuss their effectiveness in relation to societal objectives
- discuss the underlying principles for different appraisal frameworks
- apply multi-criteria analysis to transport projects
- explain and apply the principles of cost-benefit analysis to make economic appraisals of transport improvement projects
- account for advantages and limitations of cost-benefit analysis
- account for methods for non-market valuation, and discuss their strengths and limitations
- use travel cost and basic stated choice methods for non-market valuation
- apply relevant methods to account for uncertainties in project evaluation
- use relevant equity measures to account for distributional impacts of different transport policies, and discuss their strengths and limitations
- use and discuss equity measures applied in developing countries
- identify important barriers to implementation of transport policies in different contexts, and discuss means to address such barriers.

Course contents

- Policy identification and strategy formulation.
- Frameworks for appraising transport policy impact – land use, accessibility, air pollution, noise, accidents, and sustainability.
- Principles for evaluating benefits and costs.
- Basic principles and methodology for market and non-market valuation, such as stated choice methods, hedonic price models, contingent valuation, and travel cost method.
- Present value, interest rate and discount rates.
- Taxes, charges and regulation.
- Principles and methods to handle uncertainties in appraisal and evaluation.
- Equity and distributional impacts.
- Sustainability and intergenerational equity.

- Implementation and barriers to implementation.

The content of the course is presented and exercised in tutorials. Further training is provided in laboratory exercises. In a project assignment, the student will assess different policies to address an urgent policy issue.

Course literature

Mallard, G. and Glaister, S., 2008, Transportation Economics: Theory, Application, and Policy, ISBN 978-0230516878.

Ett urval av forskningasrtiklar.

Examination

- PROA - Project Report, 3.5 credits, grading scale: A, B, C, D, E, FX, F
- LABA - Laboratory Exercises, 4.0 credits, grading scale: A, B, C, D, E, FX, F

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.

Other requirements for final grade

Mandatory laboratory exercises equivalent to 4 credits with grading scale A-F and a mandatory project assignment equivalent to 3.5 credits with grading scale A-F.

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.