



AH2173 Planering och analys av kollektivtrafiksystem 7,5 hp

Public Transport

När kurs inte längre ges har student möjlighet att examineras under ytterligare två läsår.

Fastställande

Kursplan för AH2173 gäller från och med VT13

Betygsskala

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

Utbildningsnivå

Avancerad nivå

Huvudområden

Samhällsbyggnad

Särskild behörighet

Bachelor's degree in engineering, science, economics, planning or a similar degree, with at least 60 cr (ECTS) in mathematics, physics, statistics and/or computer science, as defined in the admission requirements for the Master's programme in Transport Systems. Together with documented proficiency in English corresponding to English B.

Undervisningsspråk

Undervisningsspråk anges i kurstillfällesinformationen i kurs- och programkatalogen.

Lärandemål

- Understand the four step transport planning process
- Discuss the primary stakeholders and factors influencing public transport development
- Understand and compare alternative organizational structures in the public transport sector
- Compare alternative public transport service patterns and network structures
- Calculate and interpret measures of service and network performance
- Express mode choice and route choice as a discrete choice model
- Apply methods for frequency determination, timetable design and vehicle scheduling
- Identify the sources of service uncertainty and their impact on service performance

Kursinnehåll

- Introduction to public transport systems: history, current state and trends
- Strategic planning
- Network design
- Public transport sector organization
- Service quality assessment
- Public transport performance, analysis and modeling
- Operations planning
- Service reliability and control
- Data collection methods and advanced public transport systems

Kursupplägg

The course consists of lectures and tutorials with student participation, a study visit, one exercise and a project. The project involves the analysis and evaluation of alternative network designs and their implications on operations. The project covers all the major steps that have to be undertaken including data analysis, documentation and conclusions in the form of a report and a presentation and discussion

Kurslitteratur

- Ceder (2007). Public Transit Planning and Operations – Theory, Modeling and Practice.
- Vuchic (2005). Urban Transit – Operations, Planning and Economics.
- Vuchic (2007). Urban Transit - Systems and Technology.
- A selection of research articles.

Examination

- PRO1 - Project, 4,0 hp, betygsskala: A, B, C, D, E, FX, F
- TEN1 - Examination, 3,5 hp, betygsskala: A, B, C, D, E, FX, F

Examinator beslutar, baserat på rekommendation från KTH:s handläggare av stöd till studenter med funktionsnedsättning, om eventuell anpassad examination för studenter med dokumenterad, varaktig funktionsnedsättning.

Examinator får medge annan examinationsform vid omexamination av enstaka studenter.

- PRO1 - Project, 3.5 credits, grade scale: A, B, C, D, E, FX, F
- TEN1 - Examination, 4.0 credits, grade scale: A, B, C, D, E, FX, F

Övriga krav för slutbetyg

Written examination (4,0 cr) and exercises and projects (3,5 cr)

Etiskt förhållningssätt

- Vid grupparbete har alla i gruppen ansvar för gruppens arbete.
- Vid examination ska varje student ärligt redovisa hjälp som erhållits och källor som använts.
- Vid muntlig examination ska varje student kunna redogöra för hela uppgiften och hela lösningen.