



AH2173 Planering och analys av kollektivtrafiksystem 7,5 hp

Public Transport

Kursplan för AH2173 gäller från och med VT15

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

Utbildningsnivå: Avancerad nivå

Huvudområde: Samhällsbyggnad

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

Kursens huvudsakliga innehåll

- 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

Undervisningsspråk

Undervisningsspråk anges i kurstillfällesinformationen i kurs- och programkatalogen.

Behörighet

För studenter antagna till civilingenjörprogrammet Samhällsbyggnad (CSAMH) eller masterprogrammet Transport och Geoinformatik är det inga ytterligare behörighetskrav.

För övriga studenter:

- kandidatexamen eller motsvarande inom samhällsbyggnad, geografi, teknisk fysik, datavetenskap, statistik, ekonomi, eller matematik inklusive minst 60hp i matematik, fysik, statistik, eller datavetenskap; samt
- Engelska B.

Litteratur

- 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
- 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

Krav för slutbetyg

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