



AG2804 Transporter, kommunikationer och hållbar utveckling 7,5 hp

Transport, Communication and Sustainable Development

Fastställande

Kursplanen gäller från och med VT 2024 enligt skolchefsbeslut: A-2023-1985. Beslutsdatum: 2023-08-21

Betygsskala

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

Utbildningsnivå

Avancerad nivå

Huvudområden

Samhällsbyggnad

Särskild behörighet

180 hp högskolestudier, inklusive 30 hp inom samhälls- eller transportplanering, eller inom miljö- eller transportvetenskap. Engelska 6.

Undervisningsspråk

Undervisningsspråk anges i kurstillfällesinformationen i kurs- och programkatalogen.

Lärandemål

After the course you should be able to:

- account for sustainability concepts and indicators, discuss visions of sustainable transport and compare with properties of present transport systems.
- describe alternative energy futures and their relations to climate change and explain the role of transport systems in different scenarios.
- discuss the potential for technological development in transport and infrastructure systems in relation to different energy scenarios.
- describe how scenarios and backcasting can be used to analyse sustainable transport systems
- apply scenarios and forecasting for analysis of sustainable transport options
- analyse relationships between urban development and mobility patterns and their implications for sustainability
- account for how mobility and communication patterns are analyzed and explained within the social sciences, i.e. human geography, psychology, sociology and anthropology.
- select and synthesise policies and strategies for approaching sustainable transport.

Kursinnehåll

- Sustainability concepts and indicators. Visions of sustainable transport systems and assessment of the present situation.
- Energy futures and climate change – the role of the transport system.
- The potential for technological development in transport and infrastructure systems in relation to various energy futures.
- Scenarios and backcasting as tools for analysing sustainable transport.
- Scenarios and forecasting as tools for analysing sustainable transport.
- Sustainable urban development and mobility.

Overview of important methods and results concerning mobility and sustainability within the social sciences, for instance regarding individual travel habits and social patterns of mobility and electronic communication

- Strategies and policies for approaching sustainable transport

The content of the course is presented in lectures on methodology and applications. Further training on concrete examples is provided in tutorials in the form of case studies, exercises or study visits. In a project assignment, the student will analyse the sustainability impacts of a plan, a policy or a project in a transport context. The resulting analysis should be summarised in a report to be presented and discussed in a seminar.

Examination

- INLA - Inlämningsuppgift, 3,5 hp, betygsskala: A, B, C, D, E, FX, F
- PROA - Projektuppgift, 4,0 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 enskilda studenter.

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

Övriga krav för slutbetyg

Written exam and project assignment

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.