AG2804 Transporter, kommunikationer och hållbar utveckling 7,5 hp

Transport, Communication and Sustainable Development

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

Fastställande

Kursplan för AG2804 gäller från och med VT11

Betygsskala

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

Utbildningsnivå

Avancerad nivå

Huvudområden

Samhällsbyggnad

Särskild behörighet

Bachelor's degree in architecture or landscape architecture, civil engineering in the built environment or equivalent, urban and regional planning, social or natural sciences, comprising at least 30 hp in the field of urban, transport or regional planning, or environmental sciences

För fristående sökande: 150 hp inklusive 45 hp inom arkitektur, samhällsplanering, miljövetenskap eller samhällsbyggnadsteknik samt engelska B.

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.

Kurslitteratur

Preliminarily, the course literature will be based on articles in scientific journals and other available Internet sources. A complete reading list will be provided at the home page of the course.

Examination

- PRO1 - Projektuppgift, 2,5 hp, betygsskala: P, F
- TEN1 - Tentamen, 5,0 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 enstaka studenter.

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.