AH2303 Transporter och hållbar utveckling 7,5 hp

Transport and Sustainable Development

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

Fastställande

Kursplan för AH2303 gäller från och med HT07

Betygsskala

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

Utbildningsnivå

Avancerad nivå

Huvudområden

Samhällsbyggnad

Särskild behörighet

- A completed Bachelor's degree in engineering, science, economics, planning or a similar degree, which includes at least 60 ECTS credits in mathematics, physics, statistics and/or computer science, as defined in the admission requirements for the Master's programme in Transport Systems **and**
- documented proficiency in English B or equiv(TOEFL, IELTS e g)

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
- identify environmental impacts of transport and apply the environmental impact assessment approach on a transport project
- account for the strategic environmental assessment approach and apply it on a transport plan
- 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.
- Environmental impacts of transport and methods of assessment (e.g. environmental impact assessment – EIA).
- Strategic assessment of sustainability in the transport sector (e.g. strategic environmental assessment – SEA).
- 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

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

(TEN1; 5 hp) A-F
(PROJ1; 2.5 hp) P/F.
The course grade will be determined by the grade of the written examination.

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.