Course memo Spring 2025

AG 2804 Transport, Communication and Sustainable Development 7.5 credits

Administer About course

Headings denoted with an asterisk (*) is retrieved from the course syllabus version Spring 2025

Content and learning outcomes

Course contents

- 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 course is made up of lectures, seminars/group discussions, one individual assignment and one group project. In the individual assignment a simplified future study on sustainable long-distance travel will be carried out. In the group project assignment, the group will analyse a Sustainable Urban Mobility Plan for a city of their choice. The final course sessions consist of a series of presentations where each project group also carries out a stakeholder workshop.

Intended learning outcomes

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.
- apply how scenarios and backcasting can be used to analyse sustainable transport systems.

- describe 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 by means of environmental impact assessment (EIA) and account for the strategic. environmental assessment (SEA) approach.
- select, synthesise and evaluate policies and strategies to achieve sustainable transport goals with EIA, SEA, backcasting, etc.

Examination and completion

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

Examination

- INLA - Assignment, 4.0 credits, Grading scale: A, B, C, D, E, FX, F
- PROA - Project, 3.5 credits, Grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH’s coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Opportunity to complete the requirements via supplementary examination
Yes. Only up to the grade E.

Opportunity to raise an approved grade via renewed examination
Not possible to raise an approved grade via renewed examination.

Reporting of exam results
Grades are published in Canvas page.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.

Further information

Support for students with disabilities

Students at KTH with a permanent disability can get support during studies from Funka:
Funka - compensatory support for students with disabilities