



AF2810 Navigating the Future of Mobility 6.0 credits

Navigera i framtidens mobilitet

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

The official course syllabus is valid from autumn semester 2026 as decided by the Director of First and Second Cycle Education. Decision date: 2025-05-15.

Grading scale

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

Education cycle

Second cycle

Main field of study

The Built Environment

Specific prerequisites

Intended learning outcomes

After completing the course, the student should:

- have the knowledge to express complex relationships between sustainability and the rapidly changing transportation environment, including factors such as artificial intelligence, pandemics, the development of big data, etc.

- be able to critically analyze and assess the extent to which innovations in mobility and accessibility can contribute to increased climate resilience and sustainability
- be able to identify future challenges within the European mobility sector and propose sustainable solutions to improve the sustainability and climate resilience of the transport and traffic sector both in Europe and globally,
- be able to effectively argue for the importance of international cooperation and public outreach to find sustainable solutions within the rapidly evolving mobility sector.

Course contents

The course includes a large number of seminars in the Unite! Sustainable Mobility Forum series, held weekly by speakers from academia, professors from various European universities, visiting politicians, industry and other experts from across Europe. The seminars cover a wide variety of topics, such as:

- Mobility for sustainable and climate resilient cities,
- New paradigms for urban mobility.
- Automated data sources for large-scale travel pattern analysis,
- Carbon-neutral freight transport,
- Data and technology in sustainable mobility,
- The role of shared micromobility services in sustainable mobility,
- Active modes of transport and sustainable urban mobility,
- Sustainable and smart distribution of goods in cities,
- Towards low emission urban areas for private mobility,
- Understanding and managing public transport crowding
- Multimodal accessibility in metropolitan scale: the criticality of the first and last mile,
- How artificial intelligence can enhance or hinder sustainable mobility,
- Public Bicycle Sharing Systems (BSS),
- Digital twins for sustainable urban mobility,
- Allocating road space dynamically over time in complex urban areas,
- Sustainable air mobility, Current alternatives to flight paths and travel options,
- Design of public transport networks,
- Energy carriers for low emission private mobility,
- Resilience of transport systems.

Examination

- PRO1 - Project assignment, 6.0 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. If the course is discontinued, students may request to be examined during the following two academic years.

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.