



MJ2472 Energy Planning and Applications 9.0 credits

Energiplanering och dess tillämpningar

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

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

On 22/04/2022, the Dean of the ITM school has decided to establish this official course syllabus to apply from spring term 2022 (registration number M-2022-0619).

Decision to discontinue this course

The course is discontinued at the expiration of the autumn semester 2023 according to a decision by the Dean of the ITM School : M-2022-0618. Decision date: 22/04/2022. The course is given for the last time during spring semester 2021. Final opportunity for examination will be given during spring semester 2023.

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

Bachelor degree or three year university level education in areas relevant for the course in question.

Documented proficiency in english B or equivalent

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After completion of the course the students should be able to:

1. Analyse and discuss practical examples of energy planning in industrial and municipal settings;
2. Compare different national contexts in the area;
3. Identify synergies between energy and other systems and the possibilities for creating or improving symbiotic relations

Course contents

The course aims to provide understanding about on-going projects in the area of energy planning, building upon Swedish experiences on the development of sustainable energy systems. The course comprehends three main activities:

- Discussion of practical cases about energy planning in different sectors and contexts;
- Study visits, where the students will have the opportunity to learn about actual on-site applications. The visits can include electricity companies (e.g. Fortum, Vattenfall); clean technology developers (e.g. ABB); CHP and Waste-to-energy facilities (e.g. Högdalen); sustainable urban area developments and smart grid applications (e.g. Stockholm Royal Seaport, Hammarby Sjöstad); use of waste heat for district heating purposes (e.g. SSAB); etc.
- Application of the lessons learned to a specific case in another municipal or industrial context.

Examination

- INL1 - Written analysis, 2.0 credits, grading scale: P, F
- INL2 - Case study description, 2.0 credits, grading scale: P, F
- PRO1 - Written final report and presentation, 5.0 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.

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.