CK2010 Carbon dioxide neutral energy and transport system 7.5 credits

Koldioxidneutralt energi- och transportsystem

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

Course syllabus for CK2010 valid from Spring 2025.

Grading scale

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

Education cycle

Second cycle

Main field of study

Chemical Science and Engineering

Specific prerequisites

150 credits in a technical or natural science programme. Finished degree project 15 credits. English B/6.

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 student should be able to:

· Describe, analyse and critically assess different ways to approach a carbon neutral energy and transport system with the purpose of being able to contribute to the development and implementation of these systems in society.

· Describe, analyse and critically asses different relevant components in a system approaching an energy and transport systems that approaches carbon dioxide neutrality.

Course contents

Energy carriers, energy conversion processes and energy storage techniques and its corresponding components for the construction of an energy and transport system that approaches carbon neutrality.

Examination

- PRO1 - Project work, 2.5 credits, grading scale: P, F
- TEN1 - Exam, 5.0 credits, grading scale: P, 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.

Other requirements for final grade

Instances of mandatory participation will be specified in the course memo.

The course final grade, A-F/Fx, will be based on the points obtained in the exam and the project work respectively.

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.