



# MJ2512 Transformation in Energy Policy and Climate Agenda

## 6.0 credits

Transformation i energipolitik och klimatagenda

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 15/10/2021, the Dean of the ITM school has decided establish this official course syllabus to apply from spring term 2023, registration number: M-2021-2017.

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Mechanical Engineering

## Specific prerequisites

English B/6, knowledge of different energy technologies and interactions between the different parts in an energy system, knowledge of the global energy and climate agenda (the equivalent of courses MJ2508 & MJ2381)

## Language of instruction

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

## Intended learning outcomes

After passing the course, the student should be able to:

1. Explain energy and climate policy in different sectors and development contexts (developed and developing countries) that aims for carbon dioxide neutral and climate resilient future
2. Calculate the effect of mitigating alternatives (climate policy measures) by means of transparent and harmonised procedures for greenhouse gases
3. Critically evaluate the energy policy, its implementation/measures and results for a system change towards sustainable development
4. Evaluate synergies between energy and other sectors and the role of the sector policy for handling energy use and emissions in different sectors
5. Explain and evaluate the perspectives on global climate change, including national and international actors' for establishing development priorities, finance low carbon dioxide projects, capacity building and technology transfer

## Course contents

The course includes four subject areas

- Transformation in the energy policy and the international agenda to handle the climate problem
- An understanding of the energy and climate change policy in energy planning perspective, sectoral synergies or balances and the role of the sector policy
- Tools and strategies to limit climate changes, and transparent and harmonised greenhouse gas presentation
- Tools for evaluation of energy and climate policy (evaluate policies, their implementation and results by means of indicators)

## Examination

- INL1 - Individual assignment, 1.5 credits, grading scale: A, B, C, D, E, FX, F
- PROA - Project 1, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- PROB - Project 2, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- SEM1 - Seminar, 0.5 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.

## **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.