



MJ2476 Strategies in the Global Climate Agenda 6.0 credits

Strategier i den globala klimatagendan

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

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-2022-0621).

Grading scale

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

Education cycle

Second cycle

Main field of study

Environmental Engineering, Mechanical Engineering

Specific prerequisites

The students should have good understanding of various energy technologies and interactions between the different parts in an energy system. The students should have basic knowledge about the global energy and climate agenda.

Recommended prerequisites: MJ2413 "Energy and Environment" 6cr.
Good English skills are required.

Language of instruction

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

Intended learning outcomes

Upon successfully completing the course, the student should be able to:

1. Explain climate change policies in different sectors and development contexts (developed and developing nations) aimed at a low carbon and climate-resilient future
2. Calculate the effect of mitigation options (climate policy measures) using transparent and harmonized GHG accounting procedures
3. Formulate strategies to reduce greenhouse gas emissions at project and national level.
4. Evaluate the international perspective on climate change such as setting development priorities, financing low-carbon projects, capacity building and technology transfer, and development assistance
5. Explain the roles of national and international stakeholders in the global climate change agenda

Course contents

The course will cover the following areas:

- **The climate change threat and the international agenda for addressing the problem**

The theoretical part of the course gives the student background information about climate change and milestones in the development of the international climate agenda. Key concepts such as mitigation, adaptation, flexible mechanisms to the climate convention etc. are discussed. Climate change is analyzed in the context of various sectors, e.g. industrial, residential, commercial, energy, transport, agricultural and forestry. Different country perspectives are considered and various stakeholders' perspectives reviewed (e.g., private sector, government, institutions, end-users and international agencies).

- ****Climate change mitigation tools and strategies**

****The students will use analytical tools to evaluate opportunities for climate change mitigation. They will evaluate the flexible mechanisms used internationally including CDM, emissions trading schemes, etc, and analyze the impact of various mitigation measures. This also covers institutional/policy aspects and global partnership in the preparation of national climate change strategies. 'Nationally Determined Contributions (NDCs)' and Sustainable Development Goals (SDGs) will be discussed in the context of low-carbon and climate-resilient future.**

- ****Climate change negotiations as a platform for reducing the climate threat**

****The climate convention has set the stage for global climate policies. What is the role of these negotiations, how long have they reached and how far can they push for change?**

Examination

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

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

Notes on activities:

Activity 1 - SEM1/Seminar 1: Analysis of climate policies in different sectoral and development contexts

Activity 2 - PROA/Project work 1: Transparent and harmonized GHG accounting for climate change mitigation

Activity 3 - PROB/Project work 2: Low carbon transition strategies: national actions and projects for emissions reduction

Activity 4 - INL1/Individual assignment 1: Multilateral negotiations on country positions and relevant actions to advance the implementation of the UNFCCC

Course activities and grading criteria is found in coursePM and can be updated for each course period.

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.