



# MJ2434 Advanced Refrigeration and Heat Pump Technology 6.0 credits

Påbyggnadskurs i kyl- och värmepumpsteknik

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 MJ2434 valid from Autumn 2009

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

## Specific prerequisites

Sustainable Energy Utilization, MJ2407, Applied Refrigeration and Heat Pump Technology, MJ2423 or corresponding knowledge

## Language of instruction

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

## Intended learning outcomes

The objective with the course is to introduce the students to certain chosen topics on the research front within the area of refrigeration and heat pump technology. Another objective is to broaden the students' knowledge within this area in comparison to earlier courses

## Course contents

Refrigeration and heat pump system: System understanding, refrigerants and mixes of refrigerants, their effect on environment, security, modelling methods and rules and regulations. The course also includes absorption refrigeration systems, acoustic and magnetic refrigeration, and storage of heat/cold.

## Course literature

1. Publications from technical and scientific journals, 2. Handouts from guest lecturers, 3. Handouts from the teacher

## Examination

- INL1 - Home Assignment 1, 1.0 credits, grading scale: P, F
- INL2 - Home Assignment 2, 1.0 credits, grading scale: P, F
- INL3 - Home Assignment 3, 1.0 credits, grading scale: P, F
- TEN1 - Written exam, 3.0 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.

Three homeassignments of each 1 cr. Exam of 3 cr.

## Other requirements for final grade

Approved homeassignments and exam

## 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.