

**SYLLABUS**

# **Indoor Climate 7.5 credits F0034T**

**Värme- och ventilationsteknik**

**Course syllabus admitted: Autumn 2023 Sp 1 - Present**

DECISION DATE  
**2022-02-14**

# Indoor Climate 7.5 credits F0034T

## Värme- och ventilationsteknik

### First cycle, F0034T

<b>Education level</b>	<b>Grade scale</b>	<b>Subject</b>	<b>Subject group (SCB)</b>
First cycle	G U 3 4 5	Energiteknik	Energy Technology

### Main field of study

Energy Engineering

## Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language

## Selection

The selection is based on 1-165 credits.

## Course Aim

The student should acquire the following skills in the course:

### 1. Knowledge and understanding

- could describe components used in heat and air conditioning systems.

### 2. Skills and abilities

- be able to calculate heat supply and energy demands for buildings in order to achieve suitable climate for people.
- be able to calculate heat recovery units and heat and air conditioning apparatus

### 3. Ability of assessment and attitude

- developed your ability to engineering thinking
- be able to critically assess energy systems designs in buildings.

## Contents

Heating technology: Heating demand calculations, indoor climate and heating system.

Ventilation technology: Ventilation needs, psychrometry and ventilation systems.

Cooling and heat pump technology: Studies of constituent components and the impact of external heat sources and complete systems.

District heating

## Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

Lectures, and project works.

## Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. Written test with differentiated grades. Correction according to alternative A in "Rules for examination". Passed project work.

There can be alternative examination methods.

## Unauthorized aids during exams and assessments

If a student, by using unauthorized aids, tries to mislead during an exam or when a study performance is to be assessed, disciplinary measures may be taken. The term "unauthorized aids" refers to aids that the teacher has not previously specified as permissible aids and that may assist in solving the examination task. This means that all aids not specified as permissible are prohibited. The Swedish version has interpretative precedence in the event of a conflict.

## Overlap

The course F0034T is equal to MTM133

## Course offered by

Department of Engineering Sciences and Mathematics

## Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0002	Project work	G U 3 4 5	1.5	Mandatory	A07	
0003	Written exam	G U 3 4 5	6	Mandatory	A21	

## Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

## Last revised

by Niklas Lehto, Programme Director 2022-02-14

## Syllabus established

The syllabus was established by the Department of Applied Physics and Mechanical Engineering 2007-02-28, and remains valid from autumn 2007.