AF1503 Thermodynamics for Architecture and Built Environment 3.0 credits

Termodynamik för samhällsbyggnad

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

Establishment

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

SH1010 Physics for the Built Environment, SG1107 Mechanics or equivalent

Language of instruction

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

Intended learning outcomes

Describe and explain the fundamental concepts and phenomena in engineering thermodynamics. Although able to derive some fundamentally important relationships and concepts in thermodynamics as well as cooling and heating processes.

Course contents

Basic knowledge of heat and mass transfer in building components.

Conservation Laws: continuity, energy and momentum equations.

General characteristics for fluids and gases.

Course literature

Kompendium i teknisk termodynamik. (2006) Särtryck för Installationsteknik, KTH.

Examination

- ÖVN1 - Exercises, 0.8 credits, grading scale: P, F
- TEN1 - Examination, 2.2 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.

Other requirements for final grade

TEN1 - Examination, 2.2, grade scale: A, B, C, D, E, FX, F

ÖVN1 - Exercises 0,8, grade scale: P, F

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.