

COURSE DESCRIPTION

Course code: MAP14EN04

Course name: Energy Technical Laboratory Work

Scope: 3 ECTS

Target group: 3rd year students

Objective: After completing the course, the student will have hands-on experience of apparatus and measurement methods used in energy engineering. The student will be able to analyze measured data and make conclusions based on such analysis. The student will be able to present calculations and conclusions in written form.

Content: Heat flow through insulation
Heat exchangers
Pipe flow
Pumps
Compressors
Refrigeration units

Methods: Laboratory work

Prerequisites: Heat and electricity (compulsory)
Basic energy technology (compulsory)
Applied Thermodynamics (recommended)

Literature: Instructions for the different pieces of laboratory work
Cengel, Cimbala & Turner, *Fundamentals of Thermal Fluid Sciences*, 4th edition in SI units

Examination: Preexercises and reports on laboratory work

Time: 3rd year

Language: Swedish or English