

Course: Energy Technology

credits: 2

Course code WBVP17ET

Name Energy Technology

Study year 2022-2023

ECTS credits 2 Language English

Coordinator W.F.J. Swart Ranshuysen

Modes of delivery Education

Assessments Energy Technology - Written, organised by

STAD examinations

Learning outcomes

After finishing this module the student:

- derives states, state magnitudes as well as phase transitions from a log p-h diagram and T-s diagram
- draws a circuit process of a given cooling configuration and vice versa in a log p-h diagram
- calculates different cooling configurations from cascade to economizers, etc.
- knows how to improve the COP
- calculates different configurations of steam installations
- describes how adsorption coolers function and when they can be applied

Content

Cooling technology is a collection of technical solutions to cool objects or to keep them cool by means of extracting heat at a certain area and to relieve that heat at a different area. Cooling technology is widely used in various branches like the food industry, HVAC but also liquefying natural gas. This module mainly focuses on compressor cooling (and heating). Besides compressor cooling absorption cooling is considered.

Included in programme(s)

Mechanical Engineering VWO a 3-year variant

School(s)

Institute of Engineering