Linnæus University

Jnr: 2019/959-3.1.2.2

Course syllabus

Faculty of Technology
Department of Building Technology

1BY033 Installationsteknik och energihushållning, 7,5 högskolepoäng
Heating, Ventilation, Sanitation and Energy, 7.5 credits

Main field of study
Civil Engineering

Subject Group
Building Technology

Level of classification
First Level

Progression
G1F

Date of Ratification
Approved 2009-12-15
Revised 2019-03-13 by Faculty of Technology. Prerequisites are revised.
The course syllabus is valid from autumn semester 2019

Prerequisites
Building Technology 1 (1BY008), 7.5 credits, Building Technology 2 (1BY009), 7.5 credits, Introduction to Construction Management (1BY005), 7.5 credits and 7.5 credits MAthematics within the program (Mathematics for engineers, (1MA131) 7,5 credits, Calculus for engineers, (1MA132) 7,5 credits, Linear algebra for engineers, (1MA133) 7,5 credits or Computational Methods for Technical Applications (1MA112) 15 credits or equivalent.

Objectives

After completing the course the studented is expected to

- have an insight into the importance of building services engineering for maintaining thermal comfort, good air quality as well as good hygienic conditions indoors
- have knowledge of general principles for heating, ventilation, water and sanitation
- know the background to the dimensioning of the systems of building services engineering

Content
The course comprises the following elements:

- Energy demand
- Energy economics
- Thermal comfort
- Ambient air quality
- Air control
- Ventilation principles
- Heat production
- Heat distribution
- Heating equipment
- Indoor sanitation systems
- Drawing interpretation for building services engineering

Type of Instruction
The teaching consists of lecturesand exercises.

Examination
The course is assessed with the grades U, 3, 4 or 5.
The examination of student performances will be shown in a written examination.

Course Evaluation
During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed at the Faculty.

Required Reading and Additional Study Material
Required reading
Projektering av VVS-Installationer, Catrina Warfvinge och Mats Dahlblom, Studentlitteratur, latest edition. 314 pages