

Course Syllabus

Building Physics 7.5 Credits*, First Cycle Level 1

Learning Outcomes

The overall goal of the course is for students to gain knowledge and skills in heat and moisture transport calculations, thermal management, moisture protection, sound proofing, acoustics and fire safety. The student should also get familiar with rules and regulations covering these aspects.

Upon completion of the course students will be able to:

- explain and calculate heat transfer through building parts
- explain and calculate moisture transport through building parts
- dimensioning of structural elements with respect to heat and moisture transport
- describe sound proofing and acoustics in buildings
- describe fire proofing of buildings
- describe current regulations in the building code concerning energy management, moisture protection, soundproofing, and fire proofing

Course Content

The course is divided into four parts. The first part deals with heat transport through different materials in the building enclosure and its effect on the general heat balance of buildings. The second part is about moisture in materials and moisture transport through building walls and moisture protection. The third part covers acoustics and sound proofing of buildings, while the last part deals with fire and fire proofing of buildings. Regulations in the national building code are referred to throughout the course.

Assessment

Written examination of 5 hp (5/4/3/fail)

Lab reports 2,5 hp (pass/fail)

The grade is dependent on the written exam.

Forms of Study

Every lecture is followed by excersises. The parts covering heat-, moisture transport and sound proofing also include lab work.



D.no: Du Ku 2014/425
Page 2(2)
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Grades

The Swedish grades U, 3, 4, 5.

Prerequisites

General entry requirements

Subject:

Construction

Group of Subjects:

Building Technology

Disciplinary Domain:

Technology, 100%

Approved:

Approved 21 November 2014

Valid from 17 January 2015