HS1027 Light, Acoustics and Design 7.5 credits

Ljus, akustik och design

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

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for HS1027 valid from Autumn 2007

Grading scale

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

Education cycle

First cycle

Main field of study

Built Environment,Technology

Specific prerequisites

Students in year 3 of the Bachelor of Science in Engineering programme Constructional Engineering and Design or Mechanical Engineering with focus on Innovation and Design

Language of instruction

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

Intended learning outcomes

Upon completion of the course, students shall be able to:

- Display knowledge of basic physical and perceptual properties, terms and definitions of light and building acoustics
- Describe our most common light sources, their properties, and how they can be used.
- Perform basic light and acoustic planning while taking into account the properties of the room, its materials and design, and its operational light and noise requirements for comfort, health and well-being.
- Demonstrate knowledge of governing regulations, norms and recommendations
- Display understanding of the design process

Course contents

Basic concepts to understand the properties of light and acoustics, and how light and sound can be used in an urban environment. The importance of light and acoustics for our health, our well-being, and to create a safe and secure environment.

The course also gives an overview of methods for the design and planning process.

In addition to lectures and seminars on light and acoustics, the course also contains equal parts of theoretical and practical elements. These can include a lighting design, an acoustic solution, or product design.

Course literature

Ljus och Rum - Ljuskultur

Seende och Ljusstrålning – Anders Liljefors

Other literature provided by the department

Examination

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.

Other requirements for final grade

Completed course project and a submitted Workbook with a review of the lectures, the design process used in the project, and reflections from lectures and seminars.
(PRO1, 7.5 credits). Grading scale: A-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.