



HS2005 Light and Humans 7.5 credits

Ljus och människa

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

Establishment

Course syllabus for HS2005 valid from Autumn 2008

Grading scale

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

Education cycle

Second cycle

Main field of study

The Built Environment

Specific prerequisites

In order to be eligible for this programme, a Bachelor's degree in Architecture, Design or Engineering of at least 180 ECTS must be completed. The degree must contain at least 50 ECTS of Architecture and Design subjects.

Language of instruction

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

Intended learning outcomes

The aim is to ensure that the student possesses the required knowledge within the basics of light for human beings. Understanding of the physical and visual based fundamentals in light and lighting. Theoretical basis in architectural lighting design, including methods and tools for the lighting design process. Good knowledge of the character of light sources and their field of application. Skills in practical lighting distribution and understanding of the rules. How different materials can be used and their effect on light distribution.

Course contents

Basis of light for humans related to visual, perceptual, biological, architectural and cultural requirements.

Theoretical basis in luminaire design including tools for the product design process.

The character of light sources and their field of application.

Materials and how they can be used and effect on light distribution.

Workbook presentation and reflections

Course literature

M. Rea, Lighting Handbook, 9th ed, IESNA, NY, 2000 Peter R. Boyce, Human Factors in Lighting, 2nd ed., LRC, NY

Examination

- SEM1 - Seminar, 3.0 credits, grading scale: P, F
- PRO1 - Project, 4.5 credits, grading scale: A, B, C, D, E, FX, F

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.

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

Other requirements for final grade

Projekt (PRO1; 4,5cr)

Seminarium (SEM1; 3cr)

Presence at mandatory lectures and seminars

Worked out and passed laboratory experiments, tasks, exercises and projects

Passed workbook reporting lectures, the design process and personal reflections

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.