



# HS2003 Light and Science 7.5 credits

## Ljus och teori

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 HS2003 valid from Autumn 2007

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Architecture

## Specific prerequisites

Eligibility for the programme

## 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 about relation between the physics of light irradiation, the visual based definition of light and the function of the perceptual system.

Understanding of a scientific approach to light and lighting as a basis for the application of lighting design.

Ability to apply scientific based knowledge and adopt relevant standpoints in the lighting design process.

## Course contents

- Physics of light irradiation
- Visual, perceptual based theory and definition of the concept light
- The function of the perceptual system from stimuli to information
- Basics concepts of colour and colour system
- Basis of photometry and measurements
- Carry out a case study of a lit environment and present an academic paper
- Workbook presentation and reflections

## Course literature

A Liljefors, Lighting – Visually and Physically, 1999 rev-05

IESNA, Lighting Handbook, 9th ed., NY, 2000

## Examination

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

## Other requirements for final grade

Project (PRO1; 4,5cr)

Seminars (SEM1; 3cr)

Presence at mandatory lecturers 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.