



# HS2007 Light and Humans 9.0 credits

## Ljus och människa

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 HS2007 valid from Autumn 2019

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Technology and Health

## Language of instruction

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

## Intended learning outcomes

- Students should gain a basic light and lighting vocabulary.

- Students will learn and discuss the importance of light and lighting for human beings' cultural, historical and social development.
- Students should be able to solve a lighting design task using light and materials as shaping elements of the physical environment and reflect over their communicative possibilities.
- Students must work on the solution of design tasks establishing connections between conceptual ideas and real life situations.
- Students should be able to justify design choices in terms of the relation between light sources, materials and human experience and the relevant conditions of the site.

## Course contents

- This course is the introduction to the programme and provides terminology and fundamental concepts, placing light in a cultural, historical and social context.
- Orientation about the role of lighting for the perception of the physical surrounding.
- Introduction to design process, quantitative and qualitative characteristics of daylight and electric light.
- Theoretical and visual introduction to lighting principles and technology.

## Disposition

Content's structure:

### **Daylight and artificial lighting**

(Concept, terminology, definitions)

### **Human Perception**

(Visual, non visual, psychological)

### **Design Basics**

(Observation, synthesis, process and tools)

### **Lighting machine**

(Mock-up, design-process)

## Specific prerequisites

The eligibility as required for the programme, or the equivalent knowledge in Architecture or related field.

## Course literature

DiLaura, Houser, Mistrick, Steffy.(2011) Lighting Handbook, 10th ed, IESNA.

Corrodi, Spechtenhauser. (2008) Illuminating.

Ines, Malcolm (2012) Lighting for Interior Design

Mende, Kaoru (2010) Designing with shadow.

Millet, Marietta. (1996) Light revealing architecture.

Pettersson, Svante. (2015) See the light.

Plus recommended and mandatory literature presented during the course.

Speirs, J. and Major, M. (2006). Made of Light - The art of light and architecture.

Tanizaki, Yunihiro. (1977) In praise of Shadows

Tregenza, P. & Loe, D. (2013). The design of lighting, Routledge.

Zajonc, A. (1995). Catching the Light: The Entwined History of Light and Mind.

Plus recommended and mandatory literature presented during the course.

## Examination

- INLA - Workbook, 4.5 credits, grading scale: A, B, C, D, E, FX, F
- PROA - 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.

The course has three examination modules, a workbook (INLA), design basics (PROA) and design project (PROB).

The course evaluation is a combination of analysis, process and results of project 1 and 2 (reinterpretation task and design task) and workbook grades, which reflect teamwork and individual achievements.

Examination of PROA "reinterpretation task" takes into consideration: Analysis, Findings, Process, Tools, End result.

Examination of PROB "design project" takes into consideration: Vision and Concept, Process, End result, Presentation.

Personal learning process is assessed through INLA "workbook". Examination takes into consideration the following criteria: Completeness, Structure, Depth of reflections, Critical thinking and Research.

**Detailed description of assessment methodology is provided at the beginning of each course.**

## Other requirements for final grade

To receive a final grade for this course, grade E or higher on the workbook (report of lectures, process and reflections) and the project (process and seminars) is required, as well as 80 % attendance.

Overall course grade is based on 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.