



COURSE SYLLABUS

Light for Health and Wellbeing, 6 credits

Ljus för hälsa och välmående, 6 högskolepoäng

Course Code: TLHK18	Education Cycle: First-cycle level
Confirmed by: Dean Dec 11, 2017	Disciplinary domain: Technology (95%) and social sciences (5%)
Revised by: Director of Education Nov 30, 2018	Subject group: TE9
Valid From: Jan 1, 2019	Specialised in: G2F
Version: 2	Main field of study: Product Development

Intended Learning Outcomes (ILO)

After completing the course, the student shall:

Knowledge and understanding

- show familiarity with human factors and diseases in relation to visual and non-visual effects of daylight and electrical lighting;
- display knowledge of eye diseases and their particularities in terms of lighting;
- demonstrate comprehension of well-being in relation to users' types (elderly, children, psychiatric patients, etc.) and the light environment;
- display knowledge of preventive and supportive visual ergonomics

Skills and abilities

- demonstrate skills in recognition and definition of a research problem, and handle results from an experiment

Judgement and approach

- demonstrate the ability to assess the quality level and suitability of a lighting situation according to human well-being requirements and the impact on human performance

Contents

This course is an introduction on the topic of 'light and health'. It provides information to understand the various functions of the human body affected by light as well as several ways light can be used to support the body. Additionally, this course consists of an initiation to different lighting design and research approaches to support and study human well-being.

This course contains the following elements:

- Human factors in lighting and lighting design
- Eye diseases and illnesses related to light
- Execution and analysis of scientific experiments

Type of instruction

Lectures/seminars, workshops. The students will be directly involved in the collection of their

own knowledge through a research activity. Lectures and course literature will be both in English and in Swedish.

The teaching is conducted in English.

Prerequisites

General entry requirements and completed courses 90 credits in first cycle within the program Lighting Design (or the equivalent).

Examination and grades

The course is graded Fail (U) or Pass (G).

The final grade will only be issued after satisfactory completion of all assessments.

Registration of examination:

Name of the Test	Value	Grading
Written exam	3 credits	U/G
Exercises	3 credits	U/G

Course literature

The literature is preliminary until one month before the course starts.

- P. Boyce. (2014) Human Factors in Lighting, 3rd edition, CRC Press Taylor & Francis Group – selection of relevant chapters
- Scientific articles, as provided by the teachers
- Lecture slides, digitally provided by the teachers after the lectures