



Course Module Description

General module information

Title: Meaning of Light; Light and Space

Type: Course module

Language of instruction: English

Location of the lecture: Campus Copenhagen

ECTS points: 5 ECTS

Period: 1 September 2022 — 31 January 2023

Placement

1st semester, MSc in Lighting Design

Module coordinator

[Ellen Kathrine Hansen](#) (coordinator), [Lisbeth Nykjær](#) and [Christine Pedersen](#) (secretary)

Academic content and relationships to other modules/semesters

The formal study plan description of the module can be found here:

<https://moduler.aau.dk/course/2022-2023/MSNLIDM1202?lang=da-DK>

This course covers fundamental aspects of seeing and understanding how light interacts with space and material in an architectural context. Students will train to see, understand and communicate light (electrical and daylight) in an indoor space using qualitative and quantitative methods. A common reference in literature and architecture will be established by introduction to references and classical theories of cultural and aesthetic responses to light and the space/time continuum. A fixed element in the course is to combine references, lectures, literature, exercises and experiences of how light creates form and space over time.

A workshop will kick off the course by introducing the effect of lighting in different spatial compositions. Then we will train how to see and understand light in space – not what you look at but what you see and experience and how to capture this. The theory of phenomenology will be introduced and related to methods and tools for designing with light. We will introduce the daylight as a primary light source and how the geometry of the window affects the space. Here we use sketching, scale models and mockup and make time lapse. We will visit the Villum Window Collection to study the relation between the building component technology and the daylight intake and we will study the exhibition and how lighting can communicate. The concept founded in our research group “Double Dynamic Lighting” will be introduced by studying the dynamics in daylight explored through changes in color temperature, intensity, and distribution. Here the transition time must be expressed in a 1:1 scenario, where the daylight can be complemented by dynamic LED light to express light as a natural phenomenon. To understand the potentials of the dynamic light we introduce art works where light color is mixed in a transition. We investigate color and material pursuing RGB rules that vary between light and pigment. Another topic is designing with light. We will discuss theories on how to design with light as a multidimensional design element with functional, aesthetic, and technical parameters and we will introduce practical design strategies. Finally, the students will be introduced to classical theories of cultural and aesthetic responses to light and the space/time continuum.

We intend to invite external lighting designers to give talks during the course.

This qualitative approach is applied to the semester projects and synthesized with the light- and media technological aspects covered in the two other courses.

Objectives and learning goals

The main objectives and learning goals are that the students are able to see light in relation to space, that they can understand what they see and how they can communicate it. The students must be able to synthesize relevant theoretical, methodological and practical knowledge of lighting, when designing with light and communicating light.

Extent and expected workload

During the course, there are app. 7 teaching sessions, each session consists of app. 1 lecture + discussion and exercises. The course will be introduced by a workshop. Literature, methods, and reference projects will be related to each teaching session and small exercises must be performed after the session. A mini



portfolio must be handed in at the end of the course. It is expected that the workload during the course equals 150 hours of work, which is around 3.5 week, full time work, equally distributed between literature studies to prepare for the lectures, lectures/exercises (2,5 ECTS) and the assignment (2,5 ECTS).

- 5 days kick off project
- 2 days preparing for lectures
- 3 days lectures
- 5 days exercises
- 2 days preparing for exam

Pre-requisites for participation

See the module description (find the link above) for any further detail on pre-requisites.

Examination

Modality and duration: Individual oral exam based on submitted mini portfolio. The duration will be 15 minutes followed by 5 minutes deliberation

Assessment: In accordance with the 7-point grading scale

Pre-approved aids: Mini portfolio report and slides for presentation

Prerequisites for participation: Timely hand-in of project documentation

Further detail on the exam:

In the beginning of the exam the student will do an approximately 5 minutes presentation of the developed project, after which the examiner will ask follow-up questions within the topic of the project and curriculum topics related to it. The grade will be based on a joint evaluation of the quality of the project and the oral examination.

Information concerning the mini-portfolio:

The mini-portfolio is a collection of the exercises from the lectures. The mini-portfolio cannot be group-based (should be individual for each student), but the students may help each other, work together and share ideas.

The oral presentation should respond on how the input from the course can be combined and used to demonstrate the students' ability to make analysis of daylight and electrical lighting. The student must demonstrate an understanding of applying knowledge referring to a scientific, experienced, and methodological approach through a reference to the exercises from the course.