HS2008 Light and Space-Outdoor 12.0 credits

Ljus och rum-utomhusbelysning

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

Establishment

Course syllabus for HS2008 valid from Autumn 2019

Grading scale

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

Education cycle

Second cycle

Main field of study

Architecture

Specific prerequisites

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

Language of instruction

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

Intended learning outcomes

- Students should expand their vocabulary, introducing new terms, technologies and scales.
- Students should be able to deal with urban spaces' structures and complexity, including the role of the users and the dichotomy between the diurnal and nocturnal image of the city.
- Students shall apply methods for urban analysis, and develop urban lighting concepts and execute them through full-scale applications.
- Students shall train and develop skills to work collaboratively in teams and independently reflect over their methodology and results, in order to be able to abstract them from the given context.
- Students should be able to evaluate and develop project work through self-analysis and peer-review.

Course contents

- Description of methodology and tools for outdoor lighting design process, including theoretical basis in concept and calculation for outdoor lighting.
- Fundamentals in urban planning related to lighting design and its relations to lighting master plans, sustainability and energy conservation.
- Full scale applications, functional tests and criteria for aesthetics and design based assessment.

Disposition

Content's structure:

Design Methodology I (Approach and Methods)

Technology I
(Light sources, luminaires)

**Sustainability and Ecology
**(People, Energy, Environment)

Urban Space **Theory
**(Landscape and City Scale)

Urban Lighting Design (Full scale application)

Course literature

Armengaud, Marc, et al. (2009) Land & Scape Series: Nightscapes. GG.

DiLaura, DAvid et al. (2011) Lighting Handbook, 10th ed, IES.

Gehl, Jan (1987) Life between Buildings: Using Public Space. Chapman & Hall.

Jacobs, Jane (2011) The Death and Life of Great American Cities. Modern Library.

Lynch, Kevin. (1960) The Image of the City.

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

Millet, Marietta. (1996) Light revealing architecture.

Narboni, Roger. (2004) Lighting the Landscape.

Schwalbach, Gerrit. (2009) Basics urban Planning.

Rapoport, Amos (1977) Human Aspect of Urban Form. Pergamon Press.

Zardini, Mirko (2005) Sense of the City and alternate approach to urbanism.

Plus recommended and mandatory literature presented during the course.

Examination

- INLA - Workbook, 6.0 credits, grading scale: A, B, C, D, E, FX, F
- PROA - Project, 6.0 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.

The course has four examination modules: an exercise (INLA), a workbook (INLB), Main project (PROA) and a Project Revision (PROB).

The course evaluation is a combination of analysis, examination, design task and workbook grades, which reflect teamwork and individual achievements.

The design task evaluation is divided in two parts and includes: Vision and Concept, Process, End result, Presentation and Revision.

The personal learning process is assessed through the workbook in relation to these critera: Completeness, Structure, Depth of reflections 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.