



Course syllabus

Spatiala experiment II, teori Spatial Experiments II, Theory

ASEN15, 7,5 credits, A (Second Cycle)

Valid for: 2023/24

Faculty: Faculty of Engineering, LTH

Decided by: PLED A

Date of Decision: 2023-03-28

General Information

Main field: Architecture with specialization in Spatial Experiments.

Main field: Digital Architecture and Emergent Futures.

Compulsory for: MAEF1

Elective for: A4

Language of instruction: The course will be given in English

Aim

This course aims to provide the student with a thorough understanding for the emerging field of digital architecture, and how digital tools for design and fabrication are reshaping the design processes used in the profession, now and in the future. The aim is to enable the students to use this knowledge and understanding to further their own design work in the course “Spatial Experiments II”. The course aims to develop the student’s ability to communicate and discuss theoretical concepts, both orally and in written form.

Learning outcomes

Knowledge and understanding

For a passing grade the student must

- demonstrate knowledge and understanding of current design practice within the field of digital design
- demonstrate knowledge of emerging digital technologies and their potential influence on society

Competences and skills

For a passing grade the student must

- demonstrate the ability to describe, interpret and discuss theoretical foundations, objectives, resources and concepts in the field of digital architectural design.
- demonstrate the ability to apply digital tools and processes in practical design applications
- demonstrate the ability to communicate, using words and text, a theoretical content in a professional manner.

Judgement and approach

For a passing grade the student must

- demonstrate analytical skills to critically evaluate scientific knowledge and theory related to forward-looking aspects of society and construction
- demonstrate the ability to assess the relevance and value of concepts in architectural applications
- demonstrate the ability to critically evaluate one's own performance, which has been conducted in a parallel design process.

Contents

The course investigates the ways in which digital tools – for both design and fabrication – are being implemented in the world of architecture, how they are influencing the built environment, and how they can change the design process. The students study design precedent at academic and professional level, and relate these to their own work. The student presents the course as a written report, and through the integration of theoretical concepts in the design work carried out in the associated course “Spatial Experiments II”. Teaching as lectures, seminars, workshops, study tours, literature studies, and individual and group tutorials.

Examination details

Grading scale: UG - (U,G) - (Fail, Pass)

Assessment: Accepted assignments and 80% attendance at field trips and lectures. Mandatory attendance at seminars, and submission of written work. The examiner, with input from other teachers in the course, assesses that a sufficient level of quality is achieved in the written assignment. If a failing grade is assigned to the students, the student has the right to re-examination after completion. Examiner informs the student what is required to achieve a pass.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Admission

Admission requirements:

- ATHA10 The Theory and History of Architecture II (Year 2) or ATHA25 The Theory and History of Architecture IV (Year 2)
- ATHF01 The Theory and History of Architecture V
- AADA20 Digital Tools 5
- ASBF05 The Fundamentals of Urban Design
- AAHF01 Sustainable Technology in the Built Environment
- AAHF10 Sustainable Architectural Design
- ATHF01 The Theory and History of Architecture V
- ATHF05 The Theory and History of Architecture VI

- VBEA05 The Construction Process, Basic Course
- AADA25 Digital Tools 6
- AAHF35 Documentation and Communication
- AAHF20 Architecture - In Time and Space or AAHF26 Architecture - In Urban Contexts or AAHF30 Architecture - In the Contemporary

The number of participants is limited to: 36

Selection: Completed university credits within the program. Within programmes where the course is given as a mandatory or elective mandatory course students are guaranteed admission. There after priority is given to students enrolled in programmes that include the course in the curriculum.

Reading list

- Literature is available through a digital course library, which is updated annually, as well as the reference literature below.
- Mario Carpo: The Second Digital Turn: Design Beyond Intelligence. Reference literature.

Contact and other information

Course coordinator: Pablo Miranda, pablo.miranda@abm.lth.se

Course coordinator: Gediminas Kirdeikis, gediminas.kirdeikis@abm.lth.se

Further information: The course is obligatory linked with "Spatial Experiments II" ASEN05.