A52H1B Sustainable Design - Studio 5:1 12.0 credits

Hållbar gestaltning - Studio 5:1

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

Establishment

Course syllabus for A52H1B valid from Autumn 2008

Grading scale

P, F

Education cycle

Second cycle

Main field of study

Architecture

Specific prerequisites

Bachelor's Degree, or an equivalent level, within the field of Architecture + passed 4th year studies.

Language of instruction

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

Intended learning outcomes

Micro - Macro; A) Micro

Overall goals
The project is part of the Sustainable Design Studio.
Studio Description: In order to develop new strategies for designing a sustainable society, this Studio emphazise economy, ecology, energy and new technology in relation to architecture and urban design.
2. The course/project goal is to increase the student's knowledge in this area/field and skills/knowledge in the field of architecture in general. The students will enter the project with varying degrees of knowledge/skills and will subsequently end up at different levels at the end of the course/project.
3. The individual student must show an increase in the particular skills/knowledge offered in the studio and in the field of architecture in general.

Course goals
The Micro-Macro studio stands for an interdisciplinary, creative and design-oriented technical approach towards an expanded practice of Architecture.
Micro (course 1): Create an architectural understanding for basic principles of sustainability.
Explore the basic conceptions of eco-system, energy/air flow and material/assembly and transform into a prototype project of detailed scale.
The Micro studio sets special focus on
1) Creation of an interdisciplinary working process
2) Build up technical/architectural know-how by investigating materials, processes and details through project work
3) The studio sets a focus on the development of a specific and personal graphic/technical precision in 2d/3d drawing and in physical architectural working/design models in order to communicate the project ideas.
The design process will be studio based, methodical and lead from an abstract investigation to a concrete implementation in form of a prototypical project

Course contents

Micro (5ht year) content:
Project: Space for a climate (north) / prototype architecture and urban roofscape
Site: roof of a housing block in Stockholm
Phases
1. see - investigate
2. build - transform
3. draw – refine
4. edit - discuss

Disposition

Micro (5th year) disposition:
Micro Forum: Monday pinup and input lectures
/workshop/seminar with external specialists will form integral part of the design process.

Micro reviews: first, second and final review
Micro Studio: Wednesday/Thursday tutorials are individual and or group based. A think tank focusing on design/working process is held on Thursday afternoon.
Micro report: All projects will be exhibited and published at the end of the academic year.

Course literature

Macro essentials – compendium on energies/structures
Handbooks construction:
Deplazes: Constructing Architecture
Ed van Hinte: Lightness
Handbooks sustainability:
Ed Melet: Sustainability
Ed van Hinte: Smartness
Handbooks structure:
Cecil Balmond: Informal

Equipment

Portable computer with possibility to connect to wireless (school) network
and/or 2d set of drawing tools, sketch paper
Tools for model building

Examination

- PRO2 - Project part 2, 3.0 credits, grading scale: P, F
- PRO1 - Project part 1, 9.0 credits, grading scale: P, 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 consists of two parts; a fulfilled and delivered project work (9 credits) and a passed final assessment (3 credits). There is at least one intermediate assessment during the course.

Other requirements for final grade

a) Presentation requirements
Hand in Micro:
Space-Climate
Plan/section/façade/model 1:200
Technical section/model 1:20

Perspective exterior/interior
Diagrams/concept text
Material-Energy
Technical detail 1:5 and report
Documentation
Digital documentation model/drawing
The studio presentation will be part of the future diploma portfolio and shall be delivered in an appropriate and fully qualified way.

b) Examination
80% attendance. Active participation in lectures, tutorials, and seminars etc. Passed intermediate and final assessments. Compulsory attendance during the assessment reviews.
Completion: The project work shall be delivered and, if necessary, reworked within the set time limit. See general directions.
(Overall principle: Autumn term projects must be approved during the following Spring term: Spring term projects must be approved before the start of the following Autumn term. The reworked projects must be delivered at least one week before the time limit.)
The project work is to be documented in a portfolio, including drawings, analysis and models. The work process shall be legible.

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.