AF273V BIM3, Design, Cost Estimation and Time Planning 7.5 credits

BIM3, projektering, kalkyl och tidplanering

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

Establishment

Grading scale

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

Education cycle

Second cycle

Main field of study

The Built Environment

Specific prerequisites

80p/120hp field by study of relevant subjects in Civil Technology and basic course in BIM (Building Information Modeling) and Swedish B and English A. Alternatively, Bachelor of Technology in Built Environment or Civil Engineering at the School of Architecture and the Built Environment at KTH.

Language of instruction

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

Intended learning outcomes

The course aims to provide a general overview of the 5D project planning, costing and scheduling.

After the course the student should:

- Know the theory behind BIM
- Able to manage model data and use databases in BIM project
- Knowledge of costing possibilities related to a data model
- Knowledge of scheduling tools ability related to a computer model
- Be able calculating a project
- Be able perform project management and Production control
  Working with Model Management, which supports the most common object-based CAD software.

Course contents

Problem based learning: the course is centered around a project that is based on a given architectural model. During the course the student will work simplified project, costing and quantifying of the project. Part is below are the steps to carry out this.

During the course the following topics are addressed:

- BIM, theory, practice and future use of spreadsheets and stage management
- General review of the program Revit
- Model Information and databases in the BIM design
- Calculations Opportunities linked to a data model using the Vico
- Learn to calculate a project
- Working with databases on Cost and time
- Computer-based design management and production management
- 5D cost planning with LCA (life cost analysis), study of the property's separate parts timeline.
- Introduction to program NavisWorks to coordinate several different object-based CAD databases.

Disposition

The operations consist of theory, analysis and demonstration project and where everyone's knowledge is practiced and integrated into a project.

Course literature

Announced at course start

Examination

- PRO2 - Project Work, 4.0 credits, grading scale: A, B, C, D, E, FX, F
- PRO1 - Project, 2.0 credits, grading scale: P, F
- TEN1 - Examination, 1.5 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.

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.