



# AF272V BIM2, Design, Installation and Integrated Planning

## 7.5 credits

BIM2, projektering, installation och samordning

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

If the course is discontinued, students may request to be examined during the following two academic years

### Establishment

Course syllabus for AF272V valid from Spring 2014

### Grading scale

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

### Education cycle

Second cycle

### Main field of study

Built Environment

### Specific prerequisites

120 credits in the built environment, constructional engineering and architecture. Of these, at least 7.5 credits in the built environment, 15 credits in constructional engineering, 5 credits in architecture and 3 credits in CAD, or a Bachelor of Science in constructional engineering and design, or a Master of Science in the built environment, or an equivalent degree, as well

as Swedish B/Swedish 3 and English A/English 6. In addition, courses AF1730 Building Information Modeling 7.5 credits, HS1006 The Building Process 7.5 credits, and AF1742 Business Economics and Quality Systems 7.5 credits or equivalent.

## Language of instruction

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

## Intended learning outcomes

This course aims to provide a general introduction to 3D design, installation and coordination.

Upon completion of this course, the student shall:

- Understand the theory behind Building Information Modeling (BIM)
- Be able to manage model data and use databases in BIM design
- Be able to coordinate installation with MagiCad
- Be familiar with the collision detection capabilities in Navisworks
- Be able to apply this knowledge to a project

## Course contents

**Problem-based learning: the course revolves around a project based on a given architectural model. During the course, students will perform simplified installation planning and planning coordination. The elements below are the needed basis.**

The following topics will be covered in this course:

- General definition of BIM
- MagiCAD and BIM
- MagiCAD and IFC - IFC Viewers
- IFC Import using AutoCAD MEP
- Coordination between planners
- Introduction to MagiCAD in Revit MagiCAD and Revit MEP
- Installation coordination using Navisworks

## Disposition

The course elements include a theory section, a briefing and demonstration section, and a project section in which knowledge is practised and integrated in a project.

## Course literature

To be announced at course start.

## Examination

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

## 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.