Linnæus University

Course syllabus

Faculty Board of Science and Engineering
School of Engineering

1BY080 3D-CAD, 7,5 högskolepoäng
3D-CAD, 7.5 credits

Main field of study
Civil Engineering

Subject Group
Building Technology

Level of classification
First Level

Progression
G1N

Date of Ratification
Approved by Organisational Committee 2009-12-15

The course syllabus is valid from autumn semester 2010

Prerequisites
General entry requirements.

Expected learning outcomes

After completing the course the student is expected to

- be able to use a 3D CAD system
- be able to model details and composite constructions in 3D
- be able to produce 2D drawings from the 3D models
- be able to visualize the digital model with added material, lighting and stage
- be able to animate the structure and function of the composite model
- have acquired an understanding of how a digital model can be used for development, analysis, simulation etc.

Content

The course comprises the following elements:

- Components built up from sketched and applied features
- Goals and relations
- Parametric and associative modelling
- Compilations with component adjustment
- Bottom-top and top-bottom compilations
- Drawings of components and compilations
- Visualization with photo-realistic pictures

- Animation of structure and function
- Applications of the digital model within other fields such as development, analysis, simulation, etc.

Type of Instruction
The teaching consists of lectures and computer exercises.

Examination
The course is assessed with the grades U,3,4 or 5.
On request, students may have their credits translated to ECTS-marks. Such a request must be sent to the examiner before the grading process starts.

The assessment is based on an individual project work presented with digital models, pictures and animations. The project is also presented orally at a final seminar.

Course Evaluation
A written course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The course evaluation will be filed at the department.

Credit Overlap
BYC962/BY9624, TSA923/TS9232.

Required Reading and Additional Study Material
Required reading
SolidWorks Office Premium. SolidWorks
Grundkurs: Detaljer och sammanställningar.