

# Drawing Techniques and Object-oriented Modeling

Programme course

6 credits

Ritsteknik och objektorienterad modellering

TNBI98

Valid from: 2019 Spring semester

**Determined by**

Board of Studies for Mechanical  
Engineering and Design

**Date determined**

2018-08-31

## Main field of study

Civil Engineering

## Course level

First cycle

## Advancement level

G1X

## Course offered for

- Bachelor of Science in Civil Engineering

## Intended learning outcomes

To provide knowledge and skills in utilizing BIM technology as effective visualization and design tools. After the course, students will be able to: Apply basic rules in drawing technique for the construction field. Create 2D drawings according to Swedish standards from a current model. Create model files, drawing definition files and plot files. Explain different types of drawings in the construction process.

## Course content

Basic drawing techniques: Line types. Views and sections. Dimensions. Other conventions in Drawing techniques. Introduction to the current program and object-oriented tools, their structure and interface. Modeling and principles for drawing techniques. Object-oriented modelling. Creation of 2D drawings from a current 3D model. Drawing arrangement according to Swedish Standard.

## Teaching and working methods

Lectures and computer exercises.

## Examination

|      |                 |           |      |
|------|-----------------|-----------|------|
| KTR1 | Written test    | 2 credits | U, G |
| LAB1 | Laboratory work | 4 credits | U, G |

Grades are given as 'Fail' or 'Pass'

## Grades

Two grade scale, older version, U, G

## Course literature

Ritsteknik, Karin Spets, ISBN 978-91-44-07956-1. Literature distributed during the course.

## Department

Institutionen för teknik och naturvetenskap

## Director of Studies or equivalent

Dag Haugum

## Examiner

Dag Haugum

## Course website and other links

<http://www2.itn.liu.se/utbildning/kurs/>

## Education components

Preliminary scheduled hours: 0 h

Recommended self-study hours: 160 h