

**SYLLABUS**

# **CAD and Elements of Visualization 7.5 credits Q0032B**

**CAD och visualiseringsgrunder**

**Course syllabus admitted: Spring 2014 Sp 4 - Autumn 2019 Sp 2**

**DECISION DATE  
2014-01-16**

# CAD and Elements of Visualization 7.5 credits Q0032B

## CAD och visualiseringsgrunder

### First cycle, Q0032B

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	G U 3 4 5	Berg- och mineralteknik	Mining and Mineral Technology

## Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language + Mathematics 1a/1b/1c (specifik entry A7).

Or:

Mathematics A (specifik entry 7)

## Selection

The selection is based on final school grades or Swedish Scholastic Aptitude Test.

## Examiner

Rob Hellingwerf

## Course Aim

The student should after the course be able to:

- use CAD system with appropriate symbolic application along with peripherals
- produce technical drawings or diagrams in accordance with applicable requirements in the civil engineering, construction and mineral based industries
- use typographic maps for civil engineering applications

## Contents

The course focuses on the basics of two- and three-dimensional construction and design. The course addresses perspective, projections and intersections. The basics of CAD drawing is addressed with layers, colors, coordinate systems, scales and file management. Participants learn the most common drawing tools, dimensioning, drawing production and prints through both theory and practical exercises. The course also discusses the use of topographic maps.

## Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

## Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. Assessment is done by three assignments: 1) Fundamentals of technical drafting, scales, views, sections and cuts in construction, mechanical and road drawings. 2) Drawing assignment with selected application, construction, mechanical or road: Major drafting assignment with plans, sections and details. 3) Overall visualization in the form of 3-D sketches, perspective drawings and animations. Focusing on objects within the rock industry, construction, mechanical, road.

## Literature. Valid from Spring 2014 Sp 4

## Course offered by

Department of Civil, Environmental and Natural Resources Engineering

## Items/credits

Number	Type	Credits	Grade
0001	Assignment report 1	1.5	G U 3 4 5
0002	Assignment report 2	3	G U 3 4 5
0003	Assignment report 3	3	G U 3 4 5

## Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

## Last revised

by Eva Gunneriusson 2014-01-16

## Syllabus established

by Eva Gunneriusson 2013-02-01