

# 3D Graphics

Programme course

6 credits

3D Grafik

TNGD32

Valid from: 2021 Spring semester

**Determined by**  
Board of Studies for Computer Science  
and Media Technology

**Date determined**  
2020-09-29

## Main field of study

Graphic Design and Communication

## Course level

First cycle

## Advancement level

G2X

## Course offered for

- Bachelor's Programme in Graphic Design and Communication

## Specific information

Exchange students; The course is only available to exchange students within the area of Graphic Design and Communication.

## Prerequisites

Digital image processing

## Intended learning outcomes

The aim of the course is to provide insight into and experience with fundamental methods, tools, and applications for 3-D graphics, specifically in modeling, animation and rendering. Interactive applications are not covered. The course is an introduction to a broad and complex subject, but should provide a general foundation for the students to undertake further studies and develop further skills on their own. After the course, students should:

- have fundamental skills in using at least one commonly used tool for 3-D graphics production
- discuss and use common methods for modeling, animation and rendering
- choose and use tools and methods for 3-D graphics production with proper consideration of intent
- analyze and evaluate 3-D graphics in relation to other media
- analyze and evaluate possibilities and limitations in 3-D graphics production
- evaluate and criticize their own and others' choice of solutions, both in terms of the use of technology and in terms of form and content.

## Course content

Overview of theory and practice in modeling, materials, lighting, animation and rendering.

## Teaching and working methods

The first part of the course present general methods and concepts through a lab series with supporting lectures, where theory is illustrated by focused practical assignments.

The conclusion of the course is a somewhat larger project assignment with considerable student choice in what task to take on. The task should be a concrete concept study relevant to a real world problem, decided in collaboration with the tutor. The assignment should pertain to the general area of design and communication, and reflect back on previous courses in design, visualisation and storytelling.

Assessment is done by written and oral presentations.

The course spans the entire fall semester, with the lab sessions and the project assignment concentrated to one half-semester each.

## Examination

UPG1	Assignments	3 credits	U, 3, 4, 5
LAB1	Lab Assignments	3 credits	U, G

## Grades

Four-grade scale, LiU, U, 3, 4, 5

## Other information

### About teaching and examination language

The teaching language is presented in the Overview tab for each course. The examination language relates to the teaching language as follows:

- If teaching language is Swedish, the course as a whole or in large parts, is taught in Swedish. Please note that although teaching language is Swedish, parts of the course could be given in English. Examination language is Swedish.
- If teaching language is Swedish/English, the course as a whole will be taught in English if students without prior knowledge of the Swedish language participate. Examination language is Swedish or English (depending on teaching language).
- If teaching language is English, the course as a whole is taught in English. Examination language is English.

### Other

The course is conducted in a manner where both men's and women's experience and knowledge are made visible and developed.

The planning and implementation of a course should correspond to the course syllabus. The course evaluation should therefore be conducted with the course syllabus as a starting point.

## Department

Institutionen för teknik och naturvetenskap

## Director of Studies or equivalent

Camilla Forsell

## Examiner

Stefan Gustavson

## Education components

Preliminary scheduled hours: 58 h

Recommended self-study hours: 102 h

## Course literature

### Other