

Create and Understand 3D

Programme course

6 credits

Formgivning och formseende

TMKT58

Valid from: 2017 Spring semester

Determined by

Board of Studies for Mechanical
Engineering and Design

Date determined

2017-01-25

Main field of study

Product Development, Mechanical Engineering

Course level

First cycle

Advancement level

G1X

Course offered for

- Design and Product Development, M Sc in Engineering

Entry requirements

Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Intended learning outcomes

The course shall give a deeper knowledge in designing industrial made products, by doing own experiment and study how other designers have gone about it. The ability of using different visualizing techniques in 2D and 3D are the most important ingredients.

The student will after completed course;

- being able to develop the ability to create and visualize in 2D and 3D, pictures and models by using various visualization techniques.
- increased the ability of versatility in using different ideas.
- have in depth knowledge about form and color theory
- developed the capability of independently analyzing form and gained the basic knowledge how to create an artistic formula.
- show a reflective approach towards the variations of aesthetic expressions.
- being able to analyze and judge the quality of the design.

Course content

Sketching, views, free hand perspectives. Preparation of pictures for presentations. Models. Theory of the visual language. Form theory and design aesthetics. Chromatics and principles of color composition. Product semantics. Studies, analysis and experiments with form and color synthesis. Analysis of industrial design products. Historic examples of style and design. Graphic design.

Teaching and working methods

Lectures and seminars treat important parts of the course. Though the most important parts are tutorials and individual or group based work. During the course vocal, written and visual presentation of results. Laboratory tutorials treating aspects of form and visualization techniques. The greater parts of the course is focusing on developments of ideas and variations on designs. The course runs over the entire spring semester.

Examination

UPG2	Assignment	1 credits	U, G
UPG1	Assignment	1 credits	U, G
PRA2	Project assignment	4 credits	U, 3, 4, 5

Grades

Two-grade scale, U, G

Department

Institutionen för ekonomisk och industriell utveckling

Director of Studies or equivalent

Peter Hallberg

Examiner

Mats Nåbo

Course website and other links

<http://www.iei.liu.se/machine>

Education components

Preliminary scheduled hours: 52 h

Recommended self-study hours: 108 h

Course literature

Fastställs senare

Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://stydokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.