

SYLLABUS

D1: Introduction to Industrial Design Engineering 15 credits D0057A

D1: introduktion till Teknisk design

Course syllabus admitted: Autumn 2024 Sp 1 - Present

**DECISION DATE
2024-02-14**

D1: Introduction to Industrial Design Engineering 15 credits D0057A

D1: introduktion till Teknisk design

First cycle, D0057A

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	U G VG	Industriell design	Other Subjects within Technology

Main field of study

Industrial Design Engineering

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

Selection

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

Course Aim

Knowledge and understanding

Demonstrate basic knowledge of sustainable, inclusive and human-centred design and how it can be used in practice.

Skills and abilities

Show ability to explore context, create ideas and prototype concepts with sustainability and the user at the center. Demonstrate ability to visualize, prototype and present concepts.

Approach and assessment skills

Show ability to reflect on own results and learning experiences based on inclusive design and society's goals for sustainable development.

Contents

The course introduces participants to the field of industrial design engineering and the mindset of human-centered design. In the course, the participants practice fun, relevant and hands-on design skills such as context investigation, collaboration, creative methods, visualization, prototyping, user testing and presentation techniques as well as the basics of inclusive and sustainable design. The course challenges practices where the technology comes before the user and the participants practice their abilities to creatively and practically take on current and future challenges with people and the planet at the center. The course also includes a personal workbook, in which participants describe their evolving understanding of the design process and reflect on their individual and collaborative learning experiences.

Realization

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

The course is implemented as introductory sections with subsequent practical exercises, as well as a large amount of creative independent work with the support of supervisors in the hands-on exercises in the design labs. The implementation is based on learning-by-doing and learning for agency, which means that the participants themselves are responsible for challenging themselves in the implementation of the design process. The teacher's role is to support the participant's design process and guide their individual design skills development through active supervision in the course's modules and activities.

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.

Module 1: Design project 1 -5 credits

The module contains elements of basic human-centered design, the basics of visual communication and sketching techniques, presentation techniques and an introduction to the model lab. The module is examined orally and in writing in individual workbook moments and via visual examination.

Module 2: Design project 2 -5 credits

The module includes planning projects, contextual inquiries, ideation, visualizing and prototyping concepts and presenting in collaboration with others. The module is examined orally and in writing in individual workbook moments and via visual examination.

Module 3: Design project 3 -5 credits

The module includes planning projects, exploring context, generating ideas, visualizing, prototyping and communicating concepts and presenting projects. The module is examined orally and in writing in individual workbook moments and via visual examination.

Unauthorized aids during exams and assessments

If a student, by using unauthorized aids, tries to mislead during an exam or when a study performance is to be assessed, disciplinary measures may be taken. The term "unauthorized aids" refers to aids that the teacher has not previously specified as permissible aids and that may assist in solving the examination task. This means that all aids not specified as permissible are prohibited. The Swedish version has interpretative precedence in the event of a conflict.

Remarks

Students must register for the courses themselves, or contact ETKS educational administration eduetks@itu.se, not later than three days after the quarter commences. Failure to do so can result in the place being lost. This rule also applies to students with a guaranteed place.

Replaces the course D0030A, Design: process and method.

Due to overlap, the course cannot be included in the degree together with D0030A, D0027A and D0025A or other course with similar content.

Overlap

The course D0057A is equal to D0030A, D0027A, D0025A

Course offered by

Department of Social Sciences, Technology and Arts

Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0001	Module 1: oral, written and visual examination	U G#	5	Mandatory	A23	
0002	Module 2: oral, written and visual examination	U G VG	5	Mandatory	A23	
0003	Module 3: oral, written and visual examination	U G VG	5	Mandatory	A23	

Last revised

by Director of Undergraduate Studies Daniel Örtqvist, Department of Social Sciences, Technology and Arts 2024-02-14

Syllabus established

by Director of Undergraduate Studies Daniel Örtqvist, Department of Business Administration, Technology and Social Sciences 2023-02-15