

SYLLABUS

Design: process and method 15 credits D0030A

Design: process och metod

Course syllabus admitted: Autumn 2023 Sp 1 - Present

**DECISION DATE
2021-06-16**

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First cycle, D0030A

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

The overall objective of this course is to develop course participants knowledge in industrial design engineering and skills in fundamental design methods and techniques, both individually and in practice-based cooperation projects. The course participant is expected to demonstrate ability to apply knowledge in the planning and conducting of exercises and tasks both individually and in cooperation with others, and take responsibility for visually, verbally and in writing communicate knowledge and abilities. The course participant should:

1. Demonstrate basic knowledge of industrial design engineering
2. Demonstrate basic skills in collaborating in, planning of, and managing and implementing projects
3. Demonstrate basic ability to ideate and develop socially, ecologically and economically sustainable and user friendly solutions.
4. Demonstrate basic problem-solving skills
5. Demonstrate basic skills in academic conduct
6. Demonstrate basic skills in communicating the design process and its results in writing, orally and visually
7. Demonstrate basic ability in acting professionally
8. Demonstrate basic ability of individual development with support of feedback
9. Demonstrate a basic understanding of gender equality, diversity and sustainability and how it affects products, services and environments
10. Show the ability to implement knowledge of gender equality, diversity and sustainability in design projects
11. Demonstrate the ability to reflect on gender equality, diversity and sustainability in relation to users, companies and society

Contents

- Introduction to industrial design engineering
- User-centered design
- Project management
- Basic engineering
- Design methods
- Creativity
- Usability and User experience
- Sustainable development and Ethics
- Visual, oral and written communication
- Basic model construction techniques and prototyping methods
- Practical planning, cooperation, and implementation of design projects
- Sketching: perspectives and visualization

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 designed based on learning theories concerning knowledge development by alternating theoretical and practical work and to continuously receive feedback on performance and results. The course design is based on students having an active and strategic role in their own development. A large part of the exercises are for this reason introduced by teachers or through descriptions of assignments, and are then carried out independently, both individually and in cooperation with others, with support of teachers' feedback.

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. The course examination consists of several assignments, which should contribute to achieving the learning objectives. For approved assignments, they should meet the criteria set out in the study guide and in the task descriptions on canvas. Formative feedback is provided, which means you have the opportunity to obtain feedback and then submit again before final.

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@ltu.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.

Due to similar content, the course can not be included in a degree together with the course D0025A and D0027A or other courses with similar content.

Overlap

The course D0030A is equal to D0057A

The course is equivalent D0025A Design Methodology 7,5 credits and D0027A Sketching In 7,5 credits

Course offered by

Department of Social Sciences, Technology and Arts

Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0010	Visualization 1	U G#	3.5	Mandatory	A18	
0011	Project 1	U G#	2	Mandatory	A18	
0012	Workbook 1	U G#	2	Mandatory	A18	
0013	Visualization 2	U G#	3.5	Mandatory	A18	
0014	Project 2	U G#	2	Mandatory	A18	
0015	Woorbook 2	U G VG *	2	Mandatory	A18	

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 Director of Undergraduate Studies Daniel Örtqvist, Department of Social Sciences, Technology and Arts 2021-06-16

Syllabus established

by Director of Undergraduate Studies Bo Jonsson, Department of Business Administration, Technology and Social Sciences 2016-02-15