

SYLLABUS

Scientific methods for Design Engineering 7.5 credits D7016A

Vetenskapliga metoder för teknisk design

Course syllabus admitted: Autumn 2017 Sp 1 - Autumn 2017 Sp 1

**DECISION DATE
2017-02-15**

Scientific methods for Design Engineering 7.5 credits D7016A

Vetenskapliga metoder för teknisk design

Second cycle, D7016A

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

Entry requirements

Selection

The selection is based on 30-285 credits

Examiner

Åsa Wikberg Nilsson

Course Aim

The overall purpose of the course is to develop the student's knowledge, skills and experience in reading, analysing and writing different types of academic texts, with a focus on the area of industrial design engineering.

The aims are that students will demonstrate:

- Understanding of the scientific basis for industrial design engineering
- Insights into current research and development within the area of industrial design engineering
- In-depth knowledge in a specific discipline within industrial design engineering
- Ability to critically analyse, evaluate and reflect on contents in scientific texts
- Ability to refer, relate, reflect and describe the relevance of scientific texts
- Ability to verbally clearly describe knowledge in industrial design engineering
- Ability to produce clear and consistent scientific industrial design engineering texts

Contents

The course covers knowledge and skills in academic writing within the area of industrial design engineering, different scientific representations, and working with systematic, critical reviews of academic texts.

Realization

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

Lectures, seminars and group work for understanding and analysing academic texts. The purpose of this is to develop ability to understand, describe and verbally represent academic texts. Individual assignment in academic writing: 1) PM that includes keywords and area for in-depth research and 2) An academic text within the area. Tutorials and seminars for feedback and critical review of own and others texts. Examination through oral presentation and written submission of the text.

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.

A1 Crash course in design research (group) 1.5 hp

A2 Design research methods (group) 2 hp

A3 Design theory immersion (individual) 4 hp

Grade criteria further described in course study guide.

Remarks

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

Overlap

The course D7016A is equal to D7018A

Literature. Valid from Autumn 2014 Sp 2

Material recommended by the Department

Course offered by

Department of Business Administration, Technology and Social Sciences

Items/credits

Number	Type	Credits	Grade
0007	Crash course in design research	1.5	U G#
0008	Design research methods	2	U G VG
0009	Design theory immersion	4	U G VG

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 Business Administration, Technology and Social Sciences 2017-02-15

Syllabus established

by Director of Undergraduate Studies Bo Jonsson, Department of Business Administration, Technology and Social Sciences 2014-02-14