



LTH

FACULTY OF
ENGINEERING

Course syllabus

Forskningsmetodik i industridesign Research Methods in Industrial Design

IDEN35, 5 credits, A (Second Cycle)

Valid for: 2023/24

Faculty: Faculty of Engineering, LTH

Decided by: PLED ID

Date of Decision: 2023-03-16

General Information

Main field: Industrial Design.

Compulsory for: MID2

Elective for: MD4

Language of instruction: The course will be given in English

Aim

The course aims to deepen students' understanding and ability to plan, perform and document a research study to support and justify decisions in the design process. This is done by introducing perspectives, approaches and methods used in scientific and practice-driven research in the design field and critically reflecting on and reviewing own, course participants' and published works. In the course, a research study is carried out and documented, individually or in groups. This should be designed so that the insights from this study can provide an informed basis for an upcoming design project or thesis project.

Learning outcomes

Knowledge and understanding

For a passing grade the student must

.To pass the course, students must demonstrate

- An understanding of how research studies can inform the design process.

- Knowledge of possibilities and limitations of alternative methods for carrying out research studies demonstrated in the form of a documentation; describing a well-

defined, self-selected research question, and critically reflects on appropriate approaches for addressing this question.

- An understanding of how research question, methodical approach, validity and results are related to each other.
- Awareness of the relationship between own work and research studies conducted by others through critical reading and assessment.
- An understanding of how the output from a research study can be transferred to a design brief.

Competences and skills

For a passing grade the student must

To pass the course, students must demonstrate the ability to:

- Properly acknowledge the work of others by using an established referencing system to secondary sources used in the work.
- Be able to evaluate the relevance, novelty, credibility and potential benefit of others' work in relation to one's own work.
- Formulate a self-selected, well defined, and relevant question for the design field, which is feasible within the time and resource constraints of the course.
- Communicate the research problem, research question, methodology, expected results, ethical considerations, and implications of a research study, orally as well as in writing.
- Identify a suitable approach to investigate the research question.
- With guidance, plan, collect and interpret relevant data which contributes to deepening the understanding of the chosen research topic.

Judgement and approach

For a passing grade the student must

To pass the course, students must demonstrate:

- In seminars and through peer review, orally and in writing, the ability to critically reflect on strengths, weaknesses, and implications regarding research findings.
- The ability to make ethical considerations in relation to research questions and methods applied in a research study.
- Insights into how the design field can address current and future societal challenges.

Contents

The course provides practical and theoretical knowledge and understanding of research studies conducted to support the design process. Practical knowledge is obtained by applying various methods to formulate research questions, choosing appropriate methods, collecting and analysing empirical data, and conduct literature search and reviews. Theoretical knowledge is obtained through critical reading and reflection, peer review, written and verbal communication, and discussion of research topic, methods, and findings concerning relevance, credibility and implications. Students should demonstrate their ability to plan, conduct, document, critically review a research study, and formulate findings into a design brief.

Examination details

Grading scale: UG - (U,G) - (Fail, Pass)

Assessment: Assessment is based on completed exercises and examination assignments in the different parts of the course. To pass the course, the student must demonstrate that they meet the learning objectives, in writing as well as orally for each assignment. In cases where assignments are done in groups, each student's individual role and contributions must be clearly stated. The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

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Admission

The number of participants is limited to: No

The course overlaps following course/s: IDE081

Reading list

- Muratovski, G.: Research for designers, A guide to methods and practice. Sage Publications, 2016.
- Kumar, R.: Research methodology, A step-by-step guide for beginners. Sage Publications, 2012.
- Koskinen, I., Zimmerman, J., Binder, T., Redström, J., and Wensveen, S.: Design Research Through Practice, From the Lab, Field, and Showroom. Waltham, MA: Morgan Kaufmann, 2011.
- Ruskin : Angela Ruskin University Library Guide to the Harvard Style of Referencing. 2015.
- Rennstam J and Wästerfors D: Analyze! , crafting your data in qualitative research. Studentlitteratur AB, 2018, ISBN: 978-91-44-12705-7.
- Joost G, Bredies K, Christensen M, Conradi F, Unteidig A (Eds): Design as research, positions, arguments, perspectives. Birkhäuser, 2016, ISBN: 978-3-0356-0919-6.
- Additional; scientific articles and other texts relevant to the design field will be added during the course.

Contact and other information

Course coordinator: Elin Olander, Elin.Olander@design.lth.se

Course coordinator: Anders Warell, Anders.Warell@design.lth.se

Course homepage: <http://www.ide.lth.se>

Further information: Educational form: Lectures, seminars, and exercises as well as self-studies.