



COURSE SYLLABUS **Design and Emotion (Human Factors 3), 6 credits**

Design och upplevelse (Human Factors 3), 6 högskolepoäng

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|---------------------------------------|---|
| Course Code: TDUS28 | Education Cycle: Second-cycle level |
| Confirmed by: Dean Feb 1, 2017 | Disciplinary domain: Technology (95%) and social sciences (5%) |
| Valid From: Jan 1, 2018 | Subject group: DE1 |
| Version: 1 | Specialised in: A1F |
| Reg number: JTH 2017/2389-313 | Main field of study: Product Development |

Intended Learning Outcomes (ILO)

On completion of the course, the student should

Knowledge and understanding

- demonstrate knowledge of cognitive ergonomics
- demonstrate knowledge of the perceived value of the product design
- demonstrate knowledge of the human senses and its relation to aesthetics
- demonstrate knowledge of design science and design research methodology

Skills and abilities

- demonstrate the ability to account for ergonomic principles different methods for defining a design work as data collection and analysis, and its influence on the result
- demonstrate the ability to account for aesthetics linked to sensory perception, judgment and experience.
- demonstrate the ability to account for the coupling between sensations and gestaltung, such as shape, light, sound, color, texture, etc.
- demonstrate the ability to describe principles for the interaction between humans and artefacts

Judgement and approach

- demonstrate an understanding of how different competencies in product development process contributes to, and affect the overall experience of a product.
- demonstrate the ability to make aesthetic choices, as well as evaluate and describe how these choices affect sensory perception and experience.

Contents

The course is intended to provide a deeper understanding of ergonomic principles and its impact on product design, rooms and systems, and an in-depth knowledge of human capabilities and limitations and how humans are affected by different stimuli in the artifact.

The course covers the following topics:

- Cognitive ergonomics
- Investigation and analysis

- Perception and sensation
- Design practice and design thinking
- Presentation skills
- Semantics, semiotics
- Gestaltung

Type of instruction

The course consists of lectures, seminars and exercises.

The teaching is conducted in English.

Prerequisites

Passed courses 180 credits in first cycle, at least 90 credits within the major subject Mechanical Engineering or Civil Engineering (with relevant courses in construction and design), and 15 credits Mathematics. In addition, completed course Ergonomics (Human Factors 2), 15 credits and English Language requirements corresponding to English 6 or English B in the Swedish upper secondary school (or the equivalent).

Examination and grades

The course is graded 5,4,3 or Fail.

The final grade for the course is based upon a balanced set of assessments. The final grade will only be issued after satisfactory completion of all assessments.

Registration of examination:

| Name of the Test | Value | Grading |
|------------------|-----------|---------|
| Examination | 2 credits | 5/4/3/U |
| Assignments | 4 credits | U/G |

Course literature

Literature

The literature is preliminary until one month before the course starts.

Title: The Semantic Turn

Author: Krippendorf Klaus

Publisher:

ISBN: 0-415-32220-0

Title: What designersn know

Author: Lawsson Brian

Publisher:

ISBN: 978-0-7506-6448-6

Title: Design Research Now

Author: Michel Ralf (ed)

Publisher:

ISBN: 978-3-7643-8471-5

Title: Engineering Emotional Values in Product Design

Author: Schütte S

Publisher:

ISBN: 91-85299-46-4