UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

COURSE SYLLABUS

Digital Tools in Product Development G2F

6 credits

Course code: IP520G
Version number: 3
Valid from: 1 July 2024
Ratified by: Curriculum Committee for Engineering Science
Date of ratification: 8 February 2024

1. General information about the course

The course is provided by the University of Skövde and is named Digital Tools in Product Development G2F (Digitala verktyg inom produktutveckling G2F). It comprises 6 credits and is a first-cycle course. The level of progression is G2F.

The course is a part of the main field of study in Product Design Engineering. The course is a part of the subject of Integrated Product Development. The disciplinary domain of the course is Design.

2. Entry requirements

The course has the following entry requirements: passed IP104G CAD I: Introduction G1N passed IP336G CAD II: Modeling and Documentation G1F passed IP341G Product Development Methods and Strategies G1F passed IP343G Human Centred Design G1F (or the equivalent).

3. Course content

The purpose of the course is to let students explore how current digital tools can help them in different phases during the product development process, as well as making them aware of challenges around various digital tools and synergies between these tools. During the course, students will be given the opportunity to work with some of the current digital tools. With the help of these tools, students will explore and develop product proposals and validate them with both divergent and convergent methods.

4. Objectives

After completion of the course, the student shall be able to:

Knowledge and understanding

- explain the importance and impact of digitization on the efficiency as well as the relationship between different tools in product development processes,
- identify and describe current research questions related to digital tools within product development processes,

Proficiency and ability

- integrate and interact between different digital tools in product development processes,
- develop and evaluate design proposals using digital tools, and justify the selected tools and design choices,

Critical judgement and approach

- reflect on opportunities and challenges regarding digitalization in product development, including ethics and sustainability.

5. Examination

The course is graded A (Excellent), B (Very good), C (Good), D (Satisfactory), E (Sufficient) or F (Fail).

The examinations of the course consist of the following modes of assessment:

- **Project presentation**
  3 credits, grades: G/U
- **Individual assignments**
  3 credits, grades: A/B/C/D/E/F (determines the final grade)

Students with a permanent disability who have been approved for directed educational support may be offered adapted modes of assessment.

6. Types of instruction and language of instruction

The teaching is comprised of project work, teaching lessons, supervision and presentations.

The teaching is conducted in English.

7. Course literature and other educational materials

The teaching consists of project work, lessons, supervision, reports and presentations.

8. Student influence

Student influence in the course is ensured by means of course evaluation. The students are informed about the results of the evaluation and potential measures that have been taken or are planned, based on the course evaluation.

9. Additional information

Further information about the course, as well as national and local governing documents for higher education, is available on the website of the University of Skövde.