UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

COURSE SYLLABUS

Design and Development Project I A1N

6 credits

Course code: VP773A
Version number: 2
Valid from: 1 January 2026
Ratified by: Curriculum Committee for Engineering Science
Date of ratification: 22 May 2025

1. General information about the course

The course is provided by the University of Skövde and is named Design and Development Project I A1N (Utformnings- och utvecklingsprojekt I A1N). It comprises 6 credits and is a second-cycle course. The level of progression is A1N.

The course is a part of the main field of study in Virtual Product Realization. The disciplinary domain of the course is Technology.

2. Entry requirements

A Bachelor's degree equivalent to a Swedish kandidatexamen of 180 credits, within the main fields of integrated product development or production engineering or automation engineering or mechanical engineering or information technology (or the equivalent)

A further requirement is proof of skills in English equivalent of studies at upper secondary level in Sweden, known as English course 6 or English level 2 (or the equivalent). This is normally demonstrated by means of an internationally recognized test, e g IELTS or TOEFL or the equivalent.

3. Course content

The course aims for the students to gain experience of undertaking an engineering project within their specialization and includes discussion of teamworking environments, leadership and project management in addition to practical advice on sustainable engineering. The majority of the course involves students working together in teams to solve or improve one aspect of a larger challenge project. Student teams will propose features, capabilities, modules or improvements to a device, product or industrial system. The students are then required to develop their concept through the use of virtual tooling, planning, evaluating and iterating their concept. Finally, students will discuss, reflect and report on their concept, design and teamworking.

4. Objectives

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

- identify and analyze the requirements and issues of a real-world problem and define and design an efficient solution for a given problem using software tools in virtual engineering and based on a scientific method,
- give a clear and detailed presentation of a problem and the solution orally to both researchers and industrial practitioners,
- evaluate the value of the proposed solution including tests, justification and reflection on the decisions made in the project,
- explain how the technologies and scientific theories applied or discussed within this project can be responsibly used,
- justify how different engineering methods and tools, with special focus on digitalization and virtual engineering, can support sustainable development and be a source for innovation,
- plan, monitor and document a project in a professional and structured way,
- describe, discuss and reflect upon issues in the development and implementation of a project with regard to relevant aspects regarding sustainability, equality and ethics,
- reflect on the team interactions that the students have experienced during this project.

5. Examination

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

The final grade is determined by the grades for the examination parts Presentation and Individual written assignment.

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

- **Individual written assignment**
  3 credits, grades: A/B/C/D/E/F
- **Presentation**
  3 credits, grades: A/B/C/D/E/F

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 comprises lectures, study visits, workshops, project work, supervision and seminars/group discussions.

The teaching is conducted in English.

7. Course literature and other educational materials

The list of scientific articles and other materials is provided on the course page on the learning platform.

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.