



## COURSE SYLLABUS

### Project Course, 15 credits

*Projektkurs, 15 högskolepoäng*

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<b>Course Code:</b> TPFR21	<b>Education Cycle:</b> Second-cycle level
<b>Confirmed by:</b> Dean Mar 1, 2022	<b>Disciplinary domain:</b> Technology (75%) and social sciences (25%)
<b>Valid From:</b> Aug 1, 2022	<b>Subject group:</b> TE9
<b>Version:</b> 1	<b>Specialised in:</b> A1N
	<b>Main field of study:</b> Production Systems, Product Development

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### Intended Learning Outcomes (ILO)

After a successful course, the student shall:

Knowledge and understanding

- demonstrate knowledge of scoping and planning projects
- demonstrate knowledge of challenges in product realization projects.

Skills and abilities

- demonstrate the ability to apply knowledge, methods, and tools to conceive, develop and analyze solutions and artifacts
- demonstrate the ability to identify and manage interdependencies between for the project appropriate technical aspects like e.g. esthetics, materials, design demands, ergonomics, manufacturing and logistics
- demonstrate the ability to progress a project by finding, analyzing, and using information from various sources
- demonstrate the ability to solve an industrial problem in the field of product realization with a feasible applied and scientific result
- demonstrate the ability to solve an industrial problem considering influence on performance factors.

Judgement and approach

- demonstrate an understanding of problem solving in industrial and scientific contexts
- demonstrate a holistic understanding of the project result from a life cycle perspective.

### Contents

This course is project based. It involves applying knowledge from previous courses in combination with searching for relevant knowledge to conceive and develop solutions to technical and scientific problems.

The course includes the following elements:

- Formulation of technical and scientific problems in an applied industrial context
- Planning and division of work
- Identification of knowledge needed for solving the provided project task
- Collection, processing, and analysis of data
- Development of a conceptual solution for the provided project task
- Validation of the derived results
- Reporting of project progress
- Making a life cycle assessment of the results of the project
- Writing a scientific report
- Oral presentation and opposition

### **Type of instruction**

The teaching consists of lectures, seminars and project work performed individually and in groups.

The teaching is conducted in English.

### **Prerequisites**

Passed courses 180 credits in first cycle, at least 90 credits within the major subject Mechanical Engineering, Industrial Engineering and Management or Civil Engineering, and 15 credits in Mathematics or equivalent. Proof of English proficiency is required.

### **Examination and grades**

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

The finale grade for the course is based upon a balanced set of assessments.

The finale grade will only be issued after satisfactory completion of all assessments.

Registration of examination:

Name of the Test	Value	Grading
Individual assignments	3 credits	5/4/3/U
Final project report and presentation	12 credits	5/4/3/U

### **Course literature**

The literature list for the course will be provided 8 weeks before the course starts.

Selected individually based on the project task. The selection will be based on a discussion between the students and the supervisors in relation to the selected project task. The students will be the main responsible for the identification and the selection of relevant literature.

Reference literature: Thornton, A. C. (2021). Product Realization: Going from One to a Million. John Wiley & Sons.