COURSE SYLLABUS

# Integrated Product Realization, 7.5 credits

*Integrerad produktframtagning, 7,5 högskolepoäng*

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| **Course Code:** | TIPR22 | **Education Cycle:** | Second-cycle level |
| **Confirmed by:** | Dean Mar 1, 2022 | **Disciplinary domain:** | Technology |
| **Revised by:** | Director of Education Oct 25, 2023 | **Subject group:** | MT1 |
| **Valid From:** | Aug 1, 2024 | **Specialised in:** | A1N |
| **Version:** | 2 | **Main field of study:** | Production Systems, Product Development |

## Intended Learning Outcomes (ILO)

After a successful course, the student shall:

Knowledge and understanding
- demonstrate comprehension of all stages in the product realization process
- display knowledge of methods and tools used in the different stages of the product realization process
- demonstrate comprehension of the organization of the product realization process

Skills and abilities
- demonstrate an ability to formulate and conduct product realisation projects
- demonstrate an ability to use various tool and methods for developing products towards given objectives
- demonstrate the ability to use tools and methods to solve problems related to product realization

Judgement and approach
- demonstrate the ability to value and reflect over the result of the project towards pre-determined objectives
- demonstrate an understanding of the multidisciplinary nature of the product realization proce

## Contents

The course covers the different stages in the product realization process' and provides the students with a framework for the realization of products.

The course includes the following elements:
- Requirement specifications
- Product and production specifications
- Standards in product realization
- Organizational methods in product development such as lean product development
- Group dynamics, leadership and communication in the different stages of the product

realization process

## Type of instruction

Lectures and exercises.

The teaching is conducted in English.

## Prerequisites

The applicant must hold the minimum of a bachelor's degree (i.e the equivalent of 180 ECTS credits at an accredited university) with at least 90 credits in Materials and Manufacturing, Mechanical Engineering, Industrial Engineering and Management, Civil Engineering, Chemical Engineering, Product Development or Engineering Physics or equivalent. The bachelor's degree should comprise a minimum of 15 credits in mathematics. Proof of English proficiency is required.

## 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 | 4 credits | 5/4/3/U |
| Individual Assignments | 3.5 credits | 5/4/3/U |

## Course literature

Course literature is determined 8 weeks before the course starts.

Title: Product Design and Development, Seventh Edition
Author: Karl T. Ulrich. Steven D. Eppinger. Maria C. Yang
ISBN: 978-1-260-566-43-7