



## KURSPLAN

# Integrerad produktframtagning, 7,5 högskolepoäng

*Integrated Product Realization, 7.5 credits*

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|------------------------|----------------------------|---------------------------|---|
| <b>Kurskod:</b>        | TIPR22                     | <b>Utbildningsnivå:</b>   | Avancerad nivå                          |
| <b>Fastställd av:</b>  | VD 2022-03-01              | <b>Utbildningsområde:</b> | Tekniska området                        |
| <b>Reviderad av:</b>   | Utbildningschef 2023-10-25 | <b>Ämnesgrupp:</b>        | MT1                                     |
| <b>Gäller fr.o.m.:</b> | 2024-08-01                 | <b>Fördjupning:</b>       | A1N                                     |
| <b>Version:</b>        | 2                          | <b>Huvudområde:</b>       | Produktionssystem,<br>Produktutveckling |

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### Lärandemål

After a successful course, the student shall:

Kunskap och förståelse

- 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

Färdighet och förmåga

- 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

Värderingsförmåga och förhållningssätt

- 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 process.

### Innehåll

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

### Undervisningsformer

Lectures and exercises.

Undervisningen bedrivs på engelska.

### Förkunskapskrav

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 och betyg

Kursen bedöms med betygen 5, 4, 3 eller Underkänd.

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.

Poängregistrering av examinationen för kursen sker enligt följande system:

| Examinationsmoment               | Omfattning | Betyg   |
|----------------------------------|------------|---------|
| Tentamen                         | 4 hp       | 5/4/3/U |
| Individuella inlämningsuppgifter | 3,5 hp     | 5/4/3/U |

### Kurslitteratur

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