



## KURSPLAN

# Examensarbete i Produktionssystem, 30 högskolepoäng

*Final Project Work in Production Systems, 30 credits*

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|------------------------|---------------|---------------------------|-------------------|
| <b>Kurskod:</b>        | TEUT23        | <b>Utbildningsnivå:</b>   | Avancerad nivå    |
| <b>Fastställd av:</b>  | VD 2022-03-01 | <b>Utbildningsområde:</b> | Tekniska området  |
| <b>Gäller fr.o.m.:</b> | 2023-01-01    | <b>Ämnesgrupp:</b>        | IE1               |
| <b>Version:</b>        | 1             | <b>Fördjupning:</b>       | A2E               |
|                        |               | <b>Huvudområde:</b>       | Produktionssystem |

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### Lärandemål

After a successful course, the student shall

#### Kunskap och förståelse

- demonstrate knowledge and understanding in the main field of study, including both broad knowledge of the field and a considerable degree of specialised knowledge in certain areas of the field as well as insight into current research and development work, and
- demonstrate specialised methodological knowledge in the main field of study.

#### Färdighet och förmåga

- demonstrate the ability to critically and systematically integrate knowledge and analyse, assess and deal with complex phenomena, issues and situations even with limited information
- demonstrate the ability to identify and formulate issues critically, autonomously and creatively as well as to plan and, using appropriate methods, undertake advanced tasks within predetermined time frames and so contribute to the formation of knowledge as well as the ability to evaluate this work
- demonstrate the ability in speech and writing both nationally and internationally to clearly report and discuss his or her conclusions and the knowledge and arguments on which they are based in dialogue with different audiences, and
- demonstrate the skills required for participation in research and development work or autonomous employment in some other qualified capacity.

#### Värderingsförmåga och förhållningssätt

- demonstrate the ability to make assessments in the main field of study informed by relevant disciplinary, social and ethical issues and also to demonstrate awareness of ethical aspects of research and development work
- demonstrate insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used, and
- demonstrate the ability to identify the personal need for further knowledge and take responsibility for his or her ongoing learning.

## Innehåll

The course provides knowledge and skills in carrying out an independent investigation and research study within the main field of study. Through the work, the student demonstrates the ability to apply, critically use and further develop knowledge acquired during the course of the programme in collaboration with companies, organisations, authorities or academia.

The course includes:

- Formulate problem
- Project planning
- Literature review
- Collection, processing and analysis of data
- Project implementation
- Writing report
- Presenting and defending the report
- Opposition

## Undervisningsformer

Supervision and seminars.

The student conducts the final project work within the main field of study in a group of two. The course manager can grant an exemption from this.

Undervisningen bedrivs på engelska.

## Förkunskapskrav

Godkända kurser på avancerad nivå på lägst 75 hp, inklusive en kurs i forskningsmetodik eller motsvarande. På grundnivå behöver studenten ha klarat 21 hp matematik, samt att examen på grundnivå ska vara klar.

## Examination och betyg

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

The course is examined through a written report, oral presentation of the report, review and discussion of another group's work ("opponering"), and fulfilment of mandatory elements. The grade is set according to a special assessment template.

Poängregistrering av examinationen för kursen sker enligt följande system:

| Examinationsmoment | Omfattning | Betyg   |
|--------------------|------------|---------|
| Examensarbete      | 30 hp      | 5/4/3/U |

## Övrigt

According to separate instructions, the programme manager can grant an exemption from the points requirements under Prerequisites. A supervisor and examiner are appointed for each final project work.

Implementation shall follow the instructions established at the School of Engineering. The final project work may begin after the examiner's approval.

### **Kurslitteratur**

Relevant literature is chosen based on the final project work topics. The student has the main responsibility in this process.