



## COURSE SYLLABUS

# Industrial product realisation, 5 credits

*Industriell produktframtagning, 5 högskolepoäng*

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<b>Course Code:</b> FTIPF35	<b>Education Cycle:</b> Graduate level
<b>Confirmed by:</b> Dean Feb 19, 2015	
<b>Valid From:</b> Feb 19, 2015	
<b>Version:</b> 1	

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### Intended Learning Outcomes (ILO)

After a successful course, the student shall:

#### Knowledge and understanding

- displaying knowledge of the product realisation process and its importance for the competitiveness of manufacturing companies
- being familiar with the structure and contents of the product realisation process
- being familiar with models, methods, tools, and techniques that can be used in the product realisation
- demonstrate comprehension of how the sustainability concept relates to the product realisation process

#### Skills and abilities

- demonstrating skills of presenting and explaining his/her own research and the value of collaboration with researchers within his/her field as well as other fields

#### Judgement and approach

- demonstrating ability to position and compare his/her own research and/or the research carried out within the research area where student is active to the product realisation process as well as research performed in the other research areas at JTH

### Contents

The course focus on the product realisation process, including its structure, contents and value for manufacturing companies. Moreover, the course includes overviews of JTH's research areas.

The course includes the following elements:

- Structure and contents of the product realisation process: product development and production
- Product realisation models, methods, tools, and techniques
- Integration between product development and production
- Design for Manufacturing and Assembly (DFMA)
- Product realisation and sustainability
- Overview of JTH's research areas

### Type of instruction

The course includes lectures and seminars. The course is taught in Swedish or English according to the needs of the participants.

The teaching is normally conducted in Swedish, but can occasionally be in English.

### **Prerequisites**

Admitted to third-cycle programme or equivalent.

### **Examination and grades**

The course is graded Fail (U) or Pass (G).

Pass requires active participation and oral presentations at compulsory seminars as well as completion of written assignments. The course grade is issued when the compulsory seminars and written assignments are completed.

Registration of examination:

<b>Name of the Test</b>	<b>Value</b>	<b>Grading</b>
Compulsory seminars	3 credits	U/G
Written assignments	2 credits	U/G

### **Course literature**

Industrial product realisation

Ulrich, K., Eppinger, S. (2012) Product Design and Development, McGraw-Hill

Bellgran, M., Säfsten, K. (2010) Production development: Design and operation of production systems. Springer

Additional readings will be announced during the course.