



## COURSE SYLLABUS

# Product Specification and Requirements Management, 6 credits

*Produktspecificering och kravhantering, 6 högskolepoäng*

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<b>Course Code:</b> TPKS26	<b>Education Cycle:</b> Second-cycle level
<b>Confirmed by:</b> Dean Sep 1, 2016	<b>Disciplinary domain:</b> Technology (95%) and social sciences (5%)
<b>Valid From:</b> Aug 1, 2016	<b>Subject group:</b> DT1
<b>Version:</b> 1	<b>Specialised in:</b> A1F
<b>Reg number:</b> JTH 2016/3548-313	<b>Main field of study:</b> Product Development

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### Intended Learning Outcomes (ILO)

After completing the course, the student shall

Knowledge and understanding

- be familiar with the fundamental concepts of product specification
- display knowledge of the different roles engaged in product specification
- demonstrate comprehension of the methods and techniques for eliciting, capturing and documenting requirements

Skills and abilities

- demonstrate skills of engaging with product stakeholders
- demonstrate ability to prepare a product specification
- demonstrate ability to select and use modern tools for requirements management

Judgement and approach

- demonstrate ability to assess the quality of a product specification

### Contents

The course serves as a retrospective of previous courses in software engineering and thus draws out the importance of requirements management as a means of ensuring successful software product delivery. It covers how to discover and capture requirements, and how to shape and structure them into a product specification. The focus is on the practical steps, models and techniques needed to obtain a complete, relevant and rigorous set of requirements to guide product development.

The course includes the following topics:

- Engaging with product stakeholders
- The roles of the product owner, the business analyst and the systems analyst
- Capturing and documenting requirements (including use cases, user stories and product backlogs)
- Using models to conduct robustness analysis

- Formal requirements specifications
- Tracking requirements, and their changes, through development to delivery
- Requirements negotiation (including QFD, Quality Function Deployment)

### Type of instruction

The course will consist of lectures, seminars, exercises and practical work.

The teaching is conducted in English.

### Prerequisites

Passed courses at least 90 credits within the major subject Computer Engineering, Electrical Engineering (with relevant courses in Computer Engineering) In addition, completed courses Product Development in Cross-discipline Teams I, 6 credits and (Software Product Architectures - From Chip to Enterprise, 7,5 credits and Software Product Quality Assurance, 6 credits) or (User Experience Design and Enterprise Architecture, 6 credits and IT Architecture, 7,5 credits). Proof of English proficiency is required. (or the equivalent).

### Examination and grades

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

The final grading of the course is based on a weighted fusion of written exam and project work.

Registration of examination:

Name of the Test	Value	Grading
Examination	2 credits	5/4/3/U
Assignments	1 credit	U/G
Project work	3 credits	5/4/3/U

### Other information

Exemption from entry requirement allowed according to the selection groups of the program, where the course is included.

### Course literature

The literature list for the course will be provided one month before the course starts

Main textbook:

Software Requirements

by Karl Wiegers and Joy Beatty, Microsoft Press, 2013, 3rd Edition.

Additional literature:

User Story Mapping: Discover the Whole Story, Build the Right Product

by Jeff Patton and Peter Economy,

O'Reilly, 2014.

Agile Software Requirements: Lean Requirements for Teams, Programs, and the Enterprise

by Dean Leffingwell,

Pearson Education, 2011.

Agile Product Management with Scrum: Creating Products that Customers Love  
by Roman Pichler,  
Addison-Wesley, 2010.