# Product Development Methodology

Programme course

6 credits

Produktutvecklingsmetodik

TKMJ34

Valid from: 2017 Spring semester

**Determined by**
Board of Studies for Mechanical Engineering and Design

**Date determined**
2017-01-25

**Offered for the last time**
Spring semester 2019

**Replaced by**
TKMJ52

## Main field of study
Product Development, Mechanical Engineering

## Course level
Second cycle

## Advancement level
A1X

## Course offered for
- Design and Product Development

## Entry requirements
Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

## Prerequisites
General technical knowledge from three years of study at a technical university.

## Intended learning outcomes
The student should after the course:
- Have detailed knowledge of various theoretical and practical models / processes for product development.
- Know and be able to analyze and discuss the differences in small and large companies' prerequisites regarding product development and management of these.
- Have in-depth knowledge of, and based on different given preconditions, describe important prerequisites for successful product development.
- Have in-depth knowledge of, and based on established theoretical models / approaches, be able to analyze and discuss product development and innovation processes and management of these.
- Be able to apply methods / tools for systematic and efficient product development.
- Be able to, based on given preconditions, analyze and discuss pros and cons with various product development methods/tools.

## Course content

Lectures, seminars and exercises that involve:

- Theoretical and practical models / processes for product development.
- Differences in small and large companies' prerequisites related to product development and management of these.
- Important prerequisites for successful product development.
- Established theoretical models / approaches related to product development and innovation processes and management of these.
- Methods / tools for systematic and efficient product development.
- Different product development methods / tools pros and cons.

## Teaching and working methods

The course is based on lectures and exercises and seminars.

## Examination

| | | | |
|---|---|---|---|
| UPG3 | Written report | 4.5 credits | U, 3, 4, 5 |
| KTR1 | Written test | 1.5 credits | U, G |

## Grades

Four-grade scale, LiU, U, 3, 4, 5

## Department

Institutionen för ekonomisk och industriell utveckling

## Director of Studies or equivalent

Niclas Svensson

## Examiner

Mattias Lindahl

## Course website and other links

## Education components

Preliminary scheduled hours: 56 h
Recommended self-study hours: 104 h

# Course literature

Ulrich, Karl och Eppinger, Steven (senaste versionen) Product Design and Development, New York, McGraw-Hill Higher Education Tidd and Bessant (2009) Managing Innovation – Integrating Technological, Market and Organizational Change, John Wiley and sons Ltd. Urval av vetenskapliga artiklar som finns på kursens bibliotekshemsida.

# Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://styrdokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.