

Manufacturing Technology for Design and Product Development

Programme course

6 credits

Produktionsteknik för design och produktutveckling

TMPT06

Valid from: 2017 Spring semester

Determined by

Board of Studies for Mechanical
Engineering and Design

Date determined

2017-01-25

Main field of study

Product Development, Mechanical Engineering

Course level

First cycle

Advancement level

G1X

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

Calculus, Linear Algebra, Engineering Mechanics

Intended learning outcomes

The aim of the course is to give knowledge about production methods and equipment in the mechanical industry. Specially machining techniques and basic CNC- techniques.

Course content

Lectures: Introduction, machining methods, forming methods, unconventional manufacturing methods, CNC-programming, and lectures from Swedish industry.

Lessons: Theory and exercises of machining and forming methods. Group lessons: Work with a project connected to industry.

Laborations: Measuring technology, turning and milling, deep pressing, CNC-programming.

Teaching and working methods

Lectures, lessons, group lessons and laborations. A project is also included in the course. It is solved in groups of 4 - 5 students.

The course runs over the entire spring semester.

Examination

PRA1	Project work	2 credits	U, G
LAB1	Laboratory work	1 credits	U, G
TEN1	Written examination	3 credits	U, 3, 4, 5

Grades

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

Other information

Supplementary courses: Computerized Production Equipment, Production Engineering, Production systems, Assembly Technology, Electronic Manufacturing, Automated Machine Tools, Computerized Product Planning Process.

Department

Institutionen för ekonomisk och industriell utveckling

Director of Studies or equivalent

Mats Björkman

Examiner

Peter Bjurstam

Course website and other links

<http://www.iei.liu.se/indprod/grundutbildning?l=sv>

Education components

Preliminary scheduled hours: 48 h

Recommended self-study hours: 112 h

Course literature

Additional literature

Books

Hågeryd, Björklund, Lenner, (1993) *Modern produktionsteknik del 1*
ISBN: 91-634-0065-0

R. Thompson, (2007) *Manufacturing processes for design professionals*
ISBN: 978-0-599-51375-0

Compendia

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://stydokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.