# Manufacturing Engineering

Programme course

6 credits

Tillverkningsteknik

TMPS34

Valid from: 2017 Spring semester

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

**Date determined**
2017-01-25

## Main field of study
Mechanical Engineering

## Course level
First cycle

## Advancement level
G1X

## Course offered for
- Mechanical Engineering, M Sc in Engineering

## 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. The course also contains a part about industrial robot technology.

## Course content
Lectures: Introduction, maching methods, forming methods, unconventional manufacturing methods, CNC-programming, and lecturers from Swedish industry.
Lessons: Theory and exercises of maching and formning methods. Group lessons: Work with a project conected to industry.
Laborations: Measuring technology, turning and milling, deep drawing, CNC-programming and industrial robot technology.

## 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 second half of the spring semester.

## Examination

| | | | |
|---|---|---|---|
| LAB2 | Laboratory work | 2 credits | U, G |
| UPG2 | Project work | 2 credits | U, G |
| TEN2 | Written examination | 2 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

### 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://styrdokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.