

# Manufacturing Technology

Programme course

6 credits

Produktionsteknik

TMPT07

Valid from: 2017 Spring semester

**Determined by**  
Board of Studies for Industrial  
Engineering and Logistics

**Date determined**  
2017-01-25

## Main field of study

Mechanical Engineering

## Course level

First cycle

## Advancement level

G2X

## Course offered for

- Industrial Engineering and Management - International, M Sc in Engineering
- Industrial Engineering and Management, 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, Algebra, Engineering Mechanics, Industrial Management basic course. Fundamental knowledge of Solid Mechanics and Engineering Materials is recommended.

## Intended learning outcomes

The aim of this course is to give the student fundamental knowledge of manufacturing engineering, i.e. manufacturing methods, equipment and automation. The course also contains theory and practical work in the field of industrial robots.

## Course content

Lectures: Introduction, planning, manufacturing methods, CNC-programming and industrial robot technology.

Seminars: Theory, lectures, practical examples, CNC-programming and preparation for an robotic laboration.

Laboratory work: Industrial measuring technology, Turning and Milling, Deep Pressing, CNC-programming and a laboration using industrial robots.

## Teaching and working methods

The teaching is in the form of lectures, seminars and laboratory work.  
The course runs over the entire autumn semester.

## Examination

LAB1	Laboratory work and assignments	2 credits	U, G
TEN1	Written examination	4 credits	U, 3, 4, 5

## Grades

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

## Other information

Supplementary courses:

Computerized Manufacturing Equipment, Manufacturing Technology fk,  
Automated Manufacturing Systems, Assembly Technology, Automated  
Manufacturing Machines, Automated Manufacturing Systems - project course,  
Computer Aided Manufacturing, Industrial Robot Technology.

## Department

Institutionen för ekonomisk och industriell utveckling

## Director of Studies or equivalent

Mats Björkman

## Examiner

Peter Bjurstam

## Education components

Preliminary scheduled hours: 64 h

Recommended self-study hours: 96 h

## Course literature

### Additional literature

#### Books

Hågeryd, Lennart, Björklund, Stefan, Lenner, Matz, (2005) *Modern  
produktionsteknik*

ISBN: 9147052260

Stockholm : Liber, cop. 2005

## 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](http://stydokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva).