Production Engineering

Programme course

6 credits

Produktionsteknik

TMMI70

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 2020

Replaced by
TMPS34

Main field of study
Mechanical Engineering

Course level
First cycle

Advancement level
G1X

Course offered for
- Mechanical Engineering, B 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 and engineering mechanics

Intended learning outcomes
The aim of the course is to give the student knowledge about manufacturing methods and equipement used i Swedish manufacturing industry. After the course the student shall be able to understand and describe the manufacturing methods used in industry. The student shall be able to calculate and optimize cutting data for milling, turning and drilling. The student shall be able to make/calculate estimations of loads, torques and Power needs for different forming methods. Finally shall the student understand the principal function of an NC-controlled machine and be able to do simple programming.

Course content
Lectures: Introduktion, cutting methods, shearing, forming methods and NC-programming.
Lessons: Problem solving on cutting, forming and shearing
Laborations. Basic measuring technology, Deep drawing, Milling and Turning, NC-machining.

Teaching and working methods
The course consists of lectures, lessons and laborations. The theory is given in the lectures and the lessons are used for problem solving.
the course is given during vt2.

Examination

LAB2	Laboratory work	2.5 credits	U, G
TEN2	Written examination	3.5 credits	U, 3, 4, 5

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

Other information
Supplementary courses: Energy Engineering - System

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
Modern Produktionsteknik del 1, Hågeryd, Björklund, Lenner, Liber 1993, ISBN-91-634-0065-0. Vid ämnesområdet utgivna laborations- och övnings-PM

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.