Production and Operations Management

Programme course

6 credits

Produktionsekonomi

TPPE13

Valid from: 2017 Spring semester

Determined by
Board of Studies for Industrial Engineering and Logistics

Date determined
2017-01-25

Main field of study
Industrial Engineering and Management

Course level
First cycle

Advancement level
G2X

Course offered for
- Industrial Engineering and Management - International, M Sc in Engineering
- Mathematics
- Design and Product Development
- Industrial Engineering and Management, M Sc in Engineering

Specific information
Supplementary courses:
Manufacturing Strategies. Production Logistics.

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
Basic courses in Industrial Engineering, Probability and Statistics, and Linear and Nonlinear Optimization.

Intended learning outcomes
The course is an introduction to quantitative production and inventory management and economic analysis of production. After completing the course, the students should be able to use common methods in forecasting, design of production systems as well as material and production control systems. Interactions between manufacturing and various functions within the company are also covered.

Course content

Introduction to manufacturing strategy. Engineering design. Design of production systems. Facility layout planning. Line balancing. Forecasting. Aggregate planning. Material Requirements Planning. Inventory control. Scheduling and sequencing.

Teaching and working methods

The lectures are mainly concerned with theoretical issues and concepts. The exercises are devoted to demonstrations of problem solveing. The laboratories give a hands-on experience with treated techniques.

Examination

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

Grades

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

Other information

Supplementary courses:
Manufacturing Strategies. Production Logistics.

Department

Institutionen för ekonomisk och industriell utveckling

Director of Studies or equivalent

Fredrik Persson

Examiner

Helene Lidestam

Education components

Preliminary scheduled hours: 48 h
Recommended self-study hours: 112 h

Course literature

Additional literature

Books

Olhager, Jan, (2013) *Produktionsekonomi : principer och metoder för utformning, styrning och utveckling av industriell produktion*
ISBN: 9789144067667
Lund : Studentlitteratur, 2013

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.