ML2112 Production Logistics 7.5 credits

Produktionslogistik

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for ML2112 valid from Autumn 2014

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

Higher education equivalent to at least 120 credits and documented proficiency in Swedish B and English A or the equivalent.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

On completion of the course, the student should be able to:

- Explain how the material supply process is built up and how different IT systems can support the activities
- Design forecasts and estimate errors
- Compare and dimension various types of operational control of storage
- Explain different production strategies and be able to assess which strategy that is appropriate under different preconditions
- Describe the concept of Lean and apply Lean tools
- Explain the arguments behind the aims in Theory of constraints (TOC) and explain and apply methods within TOC

Course contents

- Material supply
- Forecasts
- Inventory management
- Production planning
- Lean
- Theory of Constraints

Disposition

- lectures
- guest lectures
- study visits
- laboratory exercises
- seminars
- case

Course literature

Goldratt, E.M. (1998) Målet – en process av ständiga förbättringar. Akvedukt bokförlag.

Modig, N. & Åhlström, P. (2012) Detta är lean: lösningen på effektivitetsparadoxen. Stockholm School of Economics

Olhager, J. (2013) Produktionsekonomi: principer och metoder för utformning, styrning och utveckling av industriell produktion. Studentlittertur.

Examination

- INL1 - Assignment, 3.0 credits, grading scale: P, F
- LAB1 - Laboratory Work, 1.5 credits, grading scale: P, F
- TEN1 - Examination, 3.0 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Other requirements for final grade

approved written examination, TEN1, 3.0 credits, grading scale: A-F
passed laboratory sessions, LAB1, 1.5 credits: grading scale P/F
passed written assignments INL1, 3.0 credits: grading scale P/F

Final grades are based on the written examination

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.