ML1105 Quality Assurance - Lean Production 7.5 credits

Kvalitetssäkring - Lean Production

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

Establishment

Course syllabus for ML1105 valid from Autumn 2011

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Knowledge in project methodology, equivalent to ML1102, and in production, equivalent to ML1200.

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 shall be able to:

- Explain the general need for quality assurance procedures
- At a general level, describe important quality systems (ISO9000, TQM, Six Sigma et al.)
- Explain strategies and principles of Lean production
- Describe and apply the tools presented in the course that are used for improvement work, stable processes and standardised working methods
- Identify, describe, visualise and analyse a value stream
- Describe pulling and pushing production systems and the difference between them, and apply tools to design them
- Explain the most important principles of management of quality assurance procedures

Course contents

- Strategies and principles of Lean production
- Tools for standardised working methods, for example 5S and SMED
- Tools for improvement work, for example PDCA
- Quality systems, for example ISO9000 and TQM

Course literature

To be announced 4 weeks before the start of the course.

Examination

- INL1 - Paper, 1.5 credits, grading scale: P, F
- ÖVN1 - Exercises, 2.0 credits, grading scale: P, F
- TEN1 - Examination, 4.0 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.

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

Other requirements for final grade

Approved exam, grading scale A-F
Approved exercises, grading scale P/F
Approved written assignment, grading scale P/F

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.