ML110U Manufacturing Management /Commissioned Course/ 30.0 credits

Produktionsledarskap /Uppdragsutbildning/

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

Establishment

Course syllabus for ML110U valid from Spring 2009

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Economic or technical basic education at university level (at least 120 hp), or at least three years of relevant professional activity.

Language of instruction

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

Intended learning outcomes

After the course, participants should be able to:

- explain the basics of a lean system, as well as to describe the similarities and differences between TPM, TQM, Lean
- be able to adapt their leadership based on the demands of the lean system
- describe the tools and methods used in the pursuit of lean production
- apply a selection of these tools and methods for evaluation and design of resource-efficient production
- based on practical production cases develop solutions that eliminate/reduce waste
- take forward proposals for the appropriate layout for various typical production cases
- evaluate the advantages and disadvantages of different types of production layouts

Course contents

- Lean, TPM, TQM, SIQ what is what and how are they different concepts interconnected?
- The vision: The company's production system
- Training in communication, interaction and problem solving to effectively implement changes in an organization
- Process Management, project work, quality tools
- Continuous improvement, PDCA, problem solving
- Value Stream Mapping
- 5S, SMED, daily management, visualization, standardized work, layout, etc. (methods and tools)

Disposition

The course includes 21 days, spread over 9 occasions, and one reunion. The course includes lectures, practical exercises, analysis of own and others operations and lectures from invited speakers representing different types of organizations. To deepen the knowledge the students are given individual homework assignments to solve between course dates, these are based on their own organization and the individual role that each person play. Continuous through the course there is also a major project where the participants in groups of 5-7 individuals analyzes a selected production flow
The course ends with an exam.
A few months after the end of the course organize a reunion

Course literature

Bergman, B. Klefsjö, B. Kvalité från leverans till användning, Studentlitteratur (2007)
ISBN 978-91-44-04416-3
Bicheno, J Ny verktygslåda för lean, Revere AB (2009)
ISBN 978-91-631-9548-8
The Lean Toolbox, Quest World Wide Consulting ltd (2007)
ISBN 978-1-899682-99-7

Examination

- INL1 - Assignments, 4.0 credits, grading scale: P, F
- PRO1 - Project, 10.0 credits, grading scale: P, F
- INL2 - Assignments, 7.0 credits, grading scale: P, F
- TEN1 - Examination, 9.0 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 assignments (INL1, 4 hp, INL2; 7 hp)
Approved project task (PRO1; 10 hp)
Pass exam (TEN1; 9 credits)

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.