MG2202 Quality Control, extended course 9.0 credits

Kvalitet, större kurs

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

Establishment

Course syllabus for MG2202 valid from Autumn 2024

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

MG1016/MG1026 Manufacturing Technology, MG1024 Production
or the equivalent, and English B

Language of instruction

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

Intended learning outcomes

After passing the course, the student should be able to:

- explain and reflect on the basic principles of statistics and solve simple statistics problems
- explain and reflect on the basic principles of quality technique and quality control systems
- based on the basic principles solve simple quality related technical problems.
- by means of quality control tools formulate and solve questions related to quality control systems
- solve advanced quality related technical problems
- evaluate complex questions related to quality control systems and present a reasonable analysis

Course contents

- Statistics for engineers
- Experimental design
- Quality concepts and quality principles
- Quality costs
- Quality and customer experience
- Leadership and human resource development for quality
- Quality strategies
- Quality standards and tools
- Reliability technology
- Statistical process control and capability

Examination

- INL2 - Assignments, 3.0 credits, grading scale: P, F
- TEN2 - Written exam, 4.0 credits, grading scale: A, B, C, D, E, FX, F
- INL3 - Assignments, 2.0 credits, grading scale: P, 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.

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.