



# MG1007 Contemporary Maintenance Techniques 6.0 credits

Modern underhållsteknik

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

## Establishment

## Grading scale

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

## Education cycle

First cycle

## Main field of study

Mechanical Engineering, Technology

## Specific prerequisites

Basic university qualification and English B or the equivalent knowledge.

MG1024 Production, or the equivalent

## Language of instruction

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

# Intended learning outcomes

After completing the course with a passing grade the student should be able to:

- use correct terminology define concepts describe reliability related properties of the production system and the maintenance organisation
- characterise the operational reliability of the system as function of functional reliability, maintainability and maintenance safety
- in a structured way identify, model, simulate, predict and evaluate failure modes in production systems
- in a systematic way choose an appropriate and cost efficient maintenance strategy and develop adequate, cost efficient maintenance programs, and plan, schedule and coordinate them
- identify and specify requirements for a condition based solution
- describe and quantify an maintenance organisation that fits the company's needs and possibilities

## Course contents

The course covers the sub-areas:

- operational reliability
- failure modes- identification
- choice of maintenance strategy
- condition based maintenance
- planning and management of maintenance

## Course literature

"The complete guide to Preventive and Predictive Maintenance" Industrial Press Inc. 2003  
by Joel Levitt

All course material is provided via Canvas for registered course participants

## Examination

- INL1 - Assignment, 3.0 credits, grading scale: P, F
- TEN1 - Written exam, 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.

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

Students who have not completed the course with previous set of assessment items will be offered replacement assignments.

## **Other requirements for final grade**

Attendance on lectures 90%

## **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.