



# MG1007 Contemporary Maintenance Techniques 6.0 credits

Modern underhållsteknik

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

## Establishment

Course syllabus for MG1007 valid from Spring 2018

## Grading scale

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

## Education cycle

First cycle

## Main field of study

Mechanical Engineering, Technology

## Specific prerequisites

General admission requirements and documented proficiency equivalent to English B

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 passing the course, the student should be able to:

- explain the mechanisms affecting plant availability
- estimate the reliability performance of production plants
- apply safety regulations and the environment awareness
- apply state-of-the-art maintenance techniques and methods
- apply best maintenance practices
- select proper methods for optimal cost effectiveness
- calculate life cycle cost of the production system
- define and develop a maintenance work plan

## Course contents

The course covers the areas of reliability performance of production plants as well as maintenance methods and techniques - estimation of assets availability, availability related activities that shall be taken into account during the entire life cycle of the production system, safety regulations, environmental awareness, development of a maintenance work plan, and methods that are used to optimize the mix between corrective maintenance, preventive maintenance, strategies, and modifications

## Course literature

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

**Material that will be accessible via LMS for students registered to the course:**

lecture notes, project material and selected

excerpts from "Asset Maintenance Management", Industrial Press, Inc., June 2002, by Alan Wilson

## 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.

## **Other requirements for final grade**

Approved assignments (INL1, INL2, INL3, INL4)

## **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.