



MG2212 Strategic Maintenance Systems 11.0 credits

Strategic Maintenance Systems

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

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

Establishment

Course syllabus for MG2212 valid from Spring 2009

Grading scale

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

Education cycle

Second cycle

Main field of study

Specific prerequisites

MG2204 Manufacturing Technology and planning, MG2205 Operations Management or equivalent.

Language of instruction

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

Intended learning outcomes

The goal of this course is to provide the student with knowledge in the contemporary maintenance management practices, so he/she will become competent to manage and develop the maintenance activities in a modern enterprise and to run them cost effectively.

Course contents

Management and Organization: This course module treats the contemporary managerial (organizational and economical) topics in maintenance activities. The curriculum covers also the maintenance activities in the development and procurement of new production equipment, translation of production requirements into maintenance objectives, and how to achieve the objectives with optimized resources. Also covered is how the maintenance experience can be used during the design phase, and how to define the future maintenance needs of a company. Actual European standards within maintenance are discussed. As well as laws and regulations regarding labor, liability, guarantee environment, energy, etc.

Reliability performance of production plants: This course module covers knowledge about how to guide, control and develop the availability performance activities, in order to assure the performance of the production, the quality of the products, the safety regulations and the environment conditions. After studying this module, the student will have good knowledge of all the availability performance activities that shall be taken into account during the entire life cycle of the production system. **Maintenance methods and techniques:** This part of the course covers definition and development of the maintenance work plan. The theories and methods that are used to optimize the mix between corrective maintenance, preventive maintenance, strategies, and modifications are discussed – how to choose the right methods for the best cost effectiveness.

Maintenance information systems: This part covers the different methods and systems used in the decision making process, how to assure that the maintenance activities are cost effective, and are supporting the company profit. Further, the means how to specify the system requirements and how to develop and use the information systems for planning, control, feedback analysis and improvements are discussed.

Course literature

Litterature: Allan Wilson Asset Maintenance Management; Industrial Press, 2002
Lecture notes, E-learning documentation.

Examination

- INL1 - Assignment, 5.0 credits, grading scale: P, F
- TEN1 - Examination, 6.0 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.

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.