



# MG217V Production-ERFA 12.0 credits

## Produktions-ERFA

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

## Establishment

Course syllabus for MG217V valid from Autumn 2008

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Mechanical Engineering

## Specific prerequisites

Minimum 180 ECTS University credits or equivalent.

Swedish B and English B or equivalent

Course given in Swedish

## Language of instruction

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

## Intended learning outcomes

The aim of the course is to introduce a workers methodology which enables the user to tackle a current manufacturing problem in a constructive and rational manner. The aim is to quickly provide insight into how new technologies can be utilized and applied in the production process to give direct and useful knowledge to the participants. Experience transfer and exchange between the course participants is an important part of the course.

Overall objective: After completing the course the course participants shall be able to:

- analyze and address a technical problem
- define and identify key issues for the technical problem and formulate a problem description based on the given frame and the terms of reference
- independently plan and manage a project
- manage and gather information and facts, through different paths, which are relevant to the project
- critically examine and evaluate different technical solutions
- work in a project, this means that the participant shall have knowledge on how to structure the work within the group, how to best use the group members' skills and handle and resolve problems that may arise in a group
- write a well structured technical report which clearly describes a problem, which procedures have been used to analyze and solve the problem, and states clearly what has been concluded
- structure and perform an oral presentation in which the project results are reported

## Course contents

This course is for professional production engineers in senior positions or persons that in their daily work encounter problems with strong link to the production technology. This course aims primarily to introduce each a methodology that makes it possible to tackle the current manufacturing problems in a constructive and rational manner. The methodology is based essentially on the creation of groups known as ERFA-groups in which participants have the opportunity to exchange experiences and propose solutions to problems related to the production technology. What type of problems are dealt with is determined since it is the ERFA-group which formulates the problem. The course is given in the form of a seminar series. The seminar takes place at the premises of the problems owner and is done through lunch to lunch meeting

With careful preparation, discussions focused on the problem with its essential elements makes it possible to conduct the meeting efficiently. The key is to create an understanding of the problems addressed and the various alternatives. Preparatory work is carried out by the participant selected to set the problem and the experience team leader. The team leader ensures that all necessary information is available at the meeting.

# Disposition

## Implementation:

- ERFA group topic is decided by the organizers
- members of the group are recruited and appointed group leader, group size max 14 people
- problem owner is appointed
- preparation begins and meeting date and location is determined
- the team leader and the problem owner goes through the preparatory work on site
- the meeting will begin with a presentation of the problem owner's company
- the problem is presented and illustrated where possible and appropriate with a visit in site
- participants convey their criticism, which is constantly documented to provide the overall picture, by a specially appointed secretary
- interruption with meals for informal discussions
- identification of the problem with all participants' views
- activity for relaxation and informal discussions
- Submission of proposals for solutions to the problem from all participants and collecting of results
- closing with a summary and discussion
- documentation is compiled and distributed to participants. Follow up of latest developments at each subsequent ERFA group meeting when the problem owner is present. The implementation may vary slightly depending on the nature of the problem, but should normally be a lunch to lunch meeting. Participants must stay in the same place to get to know each other and allow for informal discussions. The participants represent their own costs.

## Examination

- SEM1 - Analysis, 4.0 credits, grading scale: P, F
- INL1 - Problem Description, 4.0 credits, grading scale: P, F
- PRO1 - Problem Solution, 4.0 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.