



HM2006 Advanced Risk Management 7.5 credits

Advanced Risk Management

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 HM2006 valid from Autumn 2014

Grading scale

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

Education cycle

Second cycle

Main field of study

Industrial Management

Language of instruction

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

Intended learning outcomes

The participants should after completing the study course be able to take the role of (Project) Risk Manager in an organisation. Also he/she will understand the prerequisites of risk reports and the importance of having made risk analysis before making important decisions.

After the course the participants should independently be able to perform

- Quantitative risk analysis
- Draw conclusions from density functions
- Be able to write environmental risk reports
- Be able to plan the insurance need for a company
- Distinguish between and use the different risk analysis methods
- Be able to analyse the impact of the organisation and the management system on the risk situation
- Be able to assist the top management when analysing business risks
- Be able to assess the risks in project execution

Course contents

The course is based on the fact that the study course Practical Statistics is completed and thus the participant has full knowledge of how to use Monte Carlo and other statistical and quantitative methods in risk analysis.

During the course the qualitative methods used in different areas will be presented and trained. Furthermore the art of determining the company insurance need will be taught as well as the impact of the organisational management system when it comes to avoiding risks or exposing employees to risk. The Management Oversight and Risk Tree will be introduced and in a simplified form used as an instrument to assess human performance.

The risks in estimate of time and cost will be presented, and parametric estimating together with simplified risk assessment methods will be taught as well as risks in procurement and subcontractor cooperation.

Specific prerequisites

The participant must have completed Applied Industrial Statistics (ML2104) or equivalent study course in Monte Carlo methods.

Course literature

- Textbook to be decided
- Electronically distributed documents

Examination

- SEM1 - Assignments and Seminar, 4.0 credits, grading scale: P, F

- TEN1 - Examination, 3.5 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.

Other requirements for final grade

- Group assignments in three different areas of risk analysis and a seminar including an advanced seminar report on one area of risk management or analysis (4 credits ECTS) Grades P/F
- Written examination (3,5 credits ECTS) Grades A-F

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.