ME1306 Industrial Project Management 7.5 credits

Industriell projektledning för I

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

Establishment

Course syllabus for ME1306 valid from Spring 2017

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Completed upper secondary education.

Only for CINEK1.

Language of instruction

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

Intended learning outcomes

To give students basic knowledge on industrial project management in differnt types of industrial operations. The aim is that course participants shall be well prepared to partiicpate in industrial project work in their respective areas of expertise.

After passing the course, the student shall be able to:

- Describe the main perspectives and developments in general organizational theory in terms of structural-, human resource-, political and symbolical research perspectives.
- Account for additional complementary perspectives such as leadership, gender, intersectionality and entrepreneurship.
- Analyse practical management problems by applying these perspectives and demonstrate how different perspectives may imply different conclusions but also add to each other
- Describe the project as an organistional form in relation to the general perspectives in organisation theory.
- Describe project management as a systems theory-based field of knowledge
- Describe the assumptions and implications of project organising as a perspective on project work
- Describe the main differences and similarities between the basic project types delivery projects, development projects and change projects
- Describe and formulate assumptions and implementation of project governance procedures
- Describe the work role of the project leader throughout the project process, also in relation to other actors related to the project
- Formulate project goals that are realistic, solution neutral and possible to evaluate
- Use tools such as WBS/PBS, OBS, Gantt schedules and network planning for detailed time planning of projects and be able to choose between these tools in a given project situation
- Describe the composition of standardised corporate project management models and the tasks usually assigned project Management Offices
- Describe a theoretical risk management process and simplified tools for project risk management
- Describe the procedures of project budgeting and the use of Earned Value Management
- Explain the relations between temporary and permanent organisational settings and describe solutions to the problems inherent in these relations
- Explain the relation between projects and their eternal environment and apply a stakeholder analysis to a specific project
- Describe the project leader role and the different aspects necessary to consider in team composition
- Analyse practical situations by means of project management tool and concepts, and recommend improvements of the project management process

Course contents

The project is an increasingly prevalent work form in all societal sectors, intended for and used for handling tasks that are not effectively delivered through extant permanent organisational structures. In practice, most students in engineering and science will after just a few years from graduation be involved in advanced project-based work. Many of the main employers for engineering graduates have become project-based organisations over time, which means that also daily operations are organised by projects.

The project is a work form that in may ways deviate from classic forms for industrial organisation, at the same time as it is well anchored in both classic and contemporary research on organisation, leadership and management. A project is a structural solution for the handling of temporary and unique tasks, which implies a focus on planning and control. At the same time, the management of projects also requires insights derived from general organisational research, such as human resource management, political process, organisational culture, ethics and leadership.

The course is focused on management and work forms in industrial delivery-, development-, and change projects. The project form and its applications are anchored in a general overview of central perspectives in organisation and management research. During the course, structural and systems theory-based project management models are thus contrasted to political and cultural perspectives and practical cases and experiences. Emphasis is put on how environmental contingencies affect project management, and also on the role of project sponsors. In addition to a general overview of general organisational and management theories, the course take the students into sub-fields such as project planning, project organising, project accounting, project procurement, project leadership and several cases from various organisations. People with extensive practical industrial project management experience may participate as guest lecturers.

Course literature

Will be announced at the start of the course.

Examination

- SEM1 - Seminar, 2.0 credits, grading scale: P, F
- INL1 - Term Paper, 1.5 credits, grading scale: P, F
- TEN1 - Examination, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- KON1 - Control Exam, 2.0 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.

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.