

# Technology-based Projects and Organisations

Programme course

6 credits

Teknikbaserade projekt och organisationer

TEIO46

Valid from: 2021 Spring semester

**Determined by**

Board of Studies for Mechanical  
Engineering and Design

**Date determined**

2020-09-29

**Offered for the last time**

Spring semester 2022

## Main field of study

Industrial Engineering and Management

## Course level

First cycle

## Advancement level

G2X

## Course offered for

- Mechanical Engineering, M Sc in Engineering

## Prerequisites

Three years of completed university studies with an engineering major, basic knowledge of Industrial economics

## Intended learning outcomes

After the course the student should:

- have gained a broad knowledge about, and be able to explain, discuss and analyse the role of projects in technology-based organisations.
- be able to explain, discuss and analyse organisational concepts such as organisation structure and culture
- be able to explain, discuss and analyse tools and methods for project management
- be able to explain, discuss and analyse the project managers' and other managers' role in technology-based organisations.
- be able to explain, discuss and analyse the project's and organisation's role in a larger context of inter- and intra-organisational relations

## Course content

Projects and project management have become more and more important for today's organisations. Organisations that succeed in designing effective project management systems can create competitive advantages. This course focuses on project and organisational aspects in technology-based organisations. In this type of organisations, managers experience challenges related to fast and dynamic developments of new technology, an increased complexity of technological systems that build on several technological bases, an increased need for collaboration between organisations and uncertainties that are inherent to technology-based projects. The course uses concepts from organisational theory such as structure and culture, and project management tools and methods to provide students with an understanding for how technology-based organisations and projects can be managed. The course also covers how project managers and other managers can lead people in such organisations and how inter-organisational relations can be managed.

## Teaching and working methods

The course builds on lectures and seminars. The lectures provide an overview of important theories and concepts in the field of technology-based projects and organisations. Most of the lectures build on so-called short cases, i.e. short descriptions of real-life situations that are used to explain and discuss the theoretical models. The seminars include practical exercises and student-led presentations of certain topics.

The course runs during the entire spring semester.

## Examination

|      |   |             |            |
|------|---|-------------|------------|
| UPG2 | Assignment, oral and written presentation of in-depth study | 2 credits   | U, 3, 4, 5 |
| UPG1 | Hand-in assignment project plan                             | 1.5 credits | U, 3, 4, 5 |
| TEN1 | Written examination   | 2.5 credits | U, 3, 4, 5 |

## Grades

Four-grade scale, LiU, U, 3, 4, 5

## Department

Institutionen för ekonomisk och industriell utveckling

## Director of Studies or equivalent

DzAMILA BIENKOWSKA

## Examiner

Eva Lovén

## Education components

Preliminary scheduled hours: 0 h

Recommended self-study hours: 160 h

## Common rules

### Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at [http://stydokument.liu.se/Regelsamling/Innehall/Utbildning\\_pa\\_grund\\_och\\_avancerad\\_niva](http://stydokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund_och_avancerad_niva).