



# MF2081 Challenges for Emerging City, Interdisciplinary Project Course A:2 (OpenLab Project Course) 7.5 credits

Utmaningar för den växande staden, tvärdisciplinär projektkurs A:2 (OpenLab projektkurs)

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

## Establishment

Course syllabus for MF2081 valid from Spring 2015

## Grading scale

P, F

## Education cycle

Second cycle

## Main field of study

Mechanical Engineering

## Specific prerequisites

Bachelor's degree

# Language of instruction

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

## Intended learning outcomes

On completion of the course, the student should be able to:

- Identify, analyse and present context and target group
- Relate scientific perspectives to different practices
- Develop, plan and evaluate new innovation ideas
- Apply interactive and creative work and design methodology
- Visualise and shape early phase of innovation project through sketches and prototypes
- Identify and analyse complex phenomena and present new innovation ideas that can be developed and implemented to be of lasting use and value for a specific target group
- Design an organisation for multidisciplinary project co-operation
- Handle problems that are incompletely specified by making reasonable assumptions
- Be able to communicate orally and in writing:
  1. Different aspects of co-operation and innovation, reflections on your own behaviour in work groups and relate it to the work group's dynamics
  2. Concept, progression and final result from an innovation vis-à-vis non-specialists outside the own subject
  3. Applied work process and implemented results to the project provider and other external interested parties

## Course contents

The course aims to give student possibility to design innovative and user adapted proposals vis-à-vis an external employer. Student should may develop and evaluate new ideas to innovations that can be implemented to create consisting use and value for a specific target group. In projects, the students learn to identify, organise, design and evaluate innovation work. Through knowledge and practices from different knowledge fields and scientific perspectives, the students learn about idea and business development, user involvement, cooperation and operational planning. The students are also given tool to apply interactive and creative work and design methodology to be able to handle incomplete given problems while still making reasonable and independent assumptions.

## Disposition

- Lectures
- Development project

- Reflection, orally and in written form

## Course literature

Will be announced at the beginning of the course.

## Examination

- PRO1 - Project, 7.5 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.

- Participation at lectures and seminars within chosen development project
- Written and oral presentation of innovation project
- Individual reflection report

## 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.