UNIVERSITY OF GOTHENBURG

DEPARTMENT OF MATHEMATICAL SCIENCES

MMA520 Project Course in Mathematical Modelling, 7.5 higher education credits

Projektkurs i matematisk modellering, 7,5 högskolepoäng

Second Cycle

Confirmation

This course syllabus was confirmed by Department of Mathematical Sciences on 2015-02-26 to be valid from 2015-07-01, autumn semester of 2015.

Field of education: Science 100%
Department: Department of Mathematical Sciences

Position in the educational system

The course is part of the following programme: 1) Mathematical Sciences, Master's Programme

Main field of studies	*Specialization*
Mathematics	A1N, Second cycle, has only first-cycle course/s as entry requirements

Entry requirements

Knowledge corresponding to the course *MMG511 Ordinary differential equations and Mathematical modelling* and one of the courses *MMG621 Nonlinear Optimization* or *MMG631 Linear and Integer Optimization with Applications*.

Learning outcomes

The aim of the course is to give the student insight in what it means to plan and conduct a real-life or real-life-like mathematical modelling project.

On successful completion of the course the student will be able to:

- apply mathematical methods to model and solve real-world problems

- have insight in the use of mathematics and statistics in industry
- have established contacts and communication with industry.

Course content
Real-life or real-life-like projects from industrial partners, to be solved in communication with these partners. Lectures on innovation theory, innovation systems and commercialization. Visits to the partners and their companies.

Form of teaching
The main part of the course consists of work on projects in groups, with regular supervision. There will also be a few mandatory lectures.

Language of instruction: English

Assessment
Satisfactory project reports delivered to the partners. Written and oral presentations of the projects. Compulsory presence at lectures and taking part in activities in connection with these.

Grades
The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).

Course evaluation
The course evaluation is done using evaluation forms and/or in direct communication with the students.

Additional information
If the course is cancelled a re-exam cannot be guaranteed.