SF2822 Applied Nonlinear Optimization 7.5 credits
Tillämpad ickelinjär optimering

Course syllabus for SF2822 valid from Autumn 08

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

Grading scale: A, B, C, D, E, FX, F
Education cycle: Second cycle
Main field of study: Mathematics

Intended learning outcomes
To deepen and broaden the student's theoretical and methodological knowledge in nonlinear programming.
To give training in the art of modeling and solving practical problems, and in presenting the results.

Course main content
Theory and methods:


Projects:

This part of the course consists of modeling practical optimization problems and using available optimization software to solve them. The projects are carried out in small groups. An important aspect of the course is cooperation within the group as well as presentations in talking and in writing.

Language of instruction
Language of instruction is specified in the course offering information in the course and programme directory.

Eligibility
Calculus, linear algebra, mathematical statistics, numerical analysis. A basic course in optimization. An advanced course in numerical analysis is an advantage.

Literature
To be announced at the beginning of the course. Preliminary literature:
Linear and Nonlinear Programming by S.G.Nash och A.Sofer, McGraw-Hill, and some material from the department.

Examination
- PRO1 - Project, 1.5 credits, grading scale: A, B, C, D, E, FX, F
- PRO2 - Project, 1.5 credits, grading scale: A, B, C, D, E, FX, F
- TEN1 - Examination, 4.5 credits, grading scale: A, B, C, D, E, FX, F
Requirements for final grade

A written exam and projects.