



# FSF3827 Topics in Optimization

## 7.5 credits

### Valda ämnen i optimering

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

If the course is discontinued, students may request to be examined during the following two academic years

### Establishment

Course syllabus for FSF3827 valid from Spring 2019

### Grading scale

P, F

### Education cycle

Third cycle

### Specific prerequisites

A Master degree including at least 30 university credits (hp) in Mathematics (Calculus, Linear algebra, Differential equations and transform method), and further at least 6 hp in Mathematical Statistics, 6 hp in Numerical analysis and 6 hp in Optimization.

Suitable prerequisites are the courses: SF3812 Applied Linear Optimization and SF3822 Applied Nonlinear Optimization, or similar knowledge.

### Language of instruction

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

## Intended learning outcomes

- To make the student familiar with reading, summarizing, and presenting, in talking as well as in writing, various scientific articles in optimization,
- To give the student special competence within a subfield of optimization.

## Course contents

The contents of the course is given by a theme within optimization, which is determined by the student and the coordinator jointly. The theme may be individual for each student or common.

The student will acquire special competence within the field of his/her theme, and present the results in talking as well as in writing. The course is build on individual work of the students.

The coordinator will give support and act as advisor. Big emphasis is put on in-depth study of the field of the theme, as well as the presentations in talking and in writing.

## Disposition

Project and seminars.

## Course literature

To be announced at the start of the course. In general scientific articles and excerpts from books will be used.

## Examination

- PRO1 - Project work, 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.

Project. Seminars.

## Other requirements for final grade

Project. Seminars.

## 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.