



# FSF3809 Selected Topics in Optimization and Systems Theory

## 3.0 credits

Valda ämnen i optimeringslära och systemteori

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 FSF3809 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.

Completed at least one ordinary PhD course relevant for the current subject of the intensive course.

## Language of instruction

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

## Intended learning outcomes

After completing the course, the student should have obtained a special competence within an up-to-date subfield of optimization and systems theory.

## Course contents

The course deals with a subfield of optimization and systems theory, decided jointly by the examiner and the teacher/researcher/guest responsible for the current occasion of the course.

## Disposition

Intensive course with lectures and problem solving each day during around a week. Dependent on the amount of lectures and exercises, there will be mandatory prework and postwork, so that the total workload for the student corresponds to two full time weeks.

## Course literature

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

## Examination

- INL1 - Assignment, 3.0 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.

Projects, Seminars, or Homework assignments

## Other requirements for final grade

Completed projects , seminars, or assignments

## 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.