FSF3950 Classical Papers in Applied Mathematics 7.5 credits

Klassiska artiklar i tillämpad matematik

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 FSF3950 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 in Mathematics.

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 students are expected to:

- Explain the fundamental ideas of classical papers in applied mathematics
- Have a good comprehension of the context, history and impact of the papers
- Be able to explain and perform computer experiments that illustrates the main results of the papers Be able to solve problems and discuss research questions related to the theory

Course contents

The purpose of this course is to cover a number of classical papers in applied and computational mathematics. There are numerous papers that have had a lasting impact on the research in applied and computational mathematics and in this course the students will gain familiarity with a selection of these papers. The course covers the mathematical aspects, as well as historical and experimental aspects, of the papers. For each paper, students will take the role as either historian, mathematician or experimentalist and present the paper from that point of view to the other students.

Disposition

Home assignments and lectures.

Course literature

To be announced at least 4 weeks before course start at course home page.

Examination

- SEM1 - Seminars, 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.

Oral presentations and homework.

Other requirements for final grade

Accepted oral presentations.

Accepted homework

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.