FSF3633 Modular forms 7.5 credits

Modulära former

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

Establishment

Course syllabus for FSF3633 valid from Autumn 2020.

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

Completed course in Complex Analysis.

Language of instruction

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

Intended learning outcomes

After completion of the course the students

- have gained a background in modular forms starting from which the study can be continued in any of the possible directions
- understand and are able to apply techniques from the classical theory of modular forms

Course contents

This course is an introduction to the theory of modular forms, starting from a classical point of view. It will discuss topics such as the modular group, modular functions, modular forms, Hecke operators, Dirichlet series, Theta functions, L-functions. Possible additional topics are aspects of the spectral theory of automorphic forms, applications within number theory, or a further study of algebro-geometric aspects.

Examination

- INL1 - Hand-in assignment, 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.

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

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.