



## Course syllabus

Faculty Board of Science and Engineering  
School of Computer Science, Physics and Mathematics

5MA11E Examensarbete på masternivå, 30 högskolepoäng  
Master's Thesis, 30 credits

**Main field of study**

Mathematics

**Subject Group**

Mathematics

**Level of classification**

Second Level

**Progression**

A2E

**Date of Ratification**

Approved by the Board of the School of Computer Science, Physics and Mathematics  
2009-08-11

Revised 2010-08-03. Revision of prerequisites and course evaluation.

The course syllabus is valid from spring semester 2011

**Prerequisites**

A bachelor degree with mathematics as major subject or corresponding knowledge in mathematics. In addition at least 45 credits on advanced level.

### Expected learning outcomes

The major goal with the course is to develop the student's understanding of mathematical proofs or ability to apply his/her knowledge and skills on an applied problem using mathematical modelling.

After completing the course, the student should be able to:

- write a mathematical proof (direction pure mathematics)
- carry out, alone or in a group, a development project using mathematical modelling and together with the supervisor select a relevant model (applied direction)
- independently analyse and evaluate achieved results
- write a scientific report and independently describe the achieved results.

### Content

The course contains

- presentation of scientific literature search

- report writing following conventions in the mathematical community
- seminars including oral presentation.

### Type of Instruction

Lectures and seminars. Compulsary assignments may be given during the course.

### Examination

The course is assessed with the grades Fail (U) or Pass (G).

On request, students may have their credits translated to ECTS-marks. Such a request must be sent to the examiner before the grading process starts. Assessment is based on the student's written report, presentation and defense of this. The student must also be an opponent to another student's submitted report.

### Course Evaluation

A course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The result of the course evaluation will be filed at the department.

### Required Reading and Additional Study Material

The student selects suitable literature for the specific field of study in cooperation with the supervisor and the examiner.