# Department of Mathematics <br> (incl. Math. Statistics) 

## Syllabus

for course at advanced level
Selected Topics in Mathematics I - Algebra
Valda ämnen i matematik - algebra

### 7.5 Higher Education <br> Credits <br> 7.5 ECTS credits

Course code:<br>Valid from:<br>Date of approval:<br>Department<br>Main field:<br>Specialisation:<br>\section*{MM8031}<br>Autumn 2012<br>2012-10-08<br>Department of Mathematics (incl. Math. Statistics)<br>Mathematics/Applied Mathematics<br>A1F - Second cycle, has second-cycle course/s as entry requirements

## Decision

This syllabus was approved by the Board of the Faculty of Science at Stockholm University 2012-10-08.

## Prerequisites and special admittance requirements

Admission to the course requires knowledge equivalent to a Bachelor degree in mathematics or a closely related subject, including at least 30 credits in mathematics at advanced level. Also required is knowledge equivalent to at least Swedish upper secondary course English B or an equivalent to one of the following tests; Cambridge CPE and CAE: Pass, IELTS: 6.0 (with no part of the test below 5.0), TOEFL (paper based): 550 (with minimum grade 4 on the written test part), TOEFL (computer based): 213, TOEFL (Internet based): 79.

## Course structure

| Examination code | Name | Higher Education Credits |
| :--- | :--- | ---: |
| HELA | Selected Topics in Mathematics - Algebra | 7.5 |

## Course content

The contents of the course will vary, depending on the availability of instructors . In general, the course will cover a selection of important current and interesting research topics in algebra.

## Learning outcomes

The students will familiarize themselves with a selected topic in algebra. After taking the course, the student is expected to be able to:
*demonstrate an understanding of a specific area in algebra,
*connect the theory to that of previous courses in mathematics,
*demonstrate the independence and mathematical maturity required to deal with extensive problems in that area.

## Education

Instruction consists of lectures and exercises.

## Forms of examination

a. The course is examined as follows: Knowledge assessment takes the form of written assignments as well as written and oral exams.
b. Grades are assigned according to a seven-point goal-related grading scale:

A = Excellent
B = Very Good
C $=$ Good
D = Satisfactory
E = Sufficient
$\mathrm{Fx}=$ Fail (more work required before credit can be awarded)
$\mathrm{F}=$ Total fail
c. The grading criteria will be distributed at the beginning of the course.
d. To be awarded a pass, a minimum of grade $E$ is required.
e. Students who fail an ordinary examination are entitled to sit additional examinations as long as the course is offered. There is no restriction on the number of examinations. Examinations also include other obligatory elements of the course. Students who have passed an examination may not resit it in order to achieve a higher grade. Students who have failed on two occasions are entitled to request the appointment of a different examiner for the next examination. Any such request must be made to the departmental board. The course has at least two examinations for each academic year in the years in which instruction is provided. Intervening years include at least one examination.
f. There is no facility to improve grade Fx up to a pass grade in this course.

## Interim

Students may request that the examination be conducted in accordance with this course plan even after it has ceased to be valid. However, this may not take place more than three times over a two year period after course instruction has ended. Requests must be made to the departmental board. The provision also applies in the case of revisions to the syllabus.

## Misc

The course is a component of the master programs in mathematics and applied mathematics, and it can also be taken as an individual course.

## Required reading

Course literature is decided by the departmental board and described thereafter in an appendix to the syllabus.

