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# Department of Mathematics (incl. Math. Statistics)

# Syllabus

for course at advanced level Mathematics, Degree Project Matematik, självständigt arbete

Course code: Valid from: Date of approval: Department

Main field: Specialisation: MM9008 Autumn 2021 2021-06-17 Department of Mathematics (incl. Math. Statistics)

Mathematics/Applied Mathematics A2E - Second cycle, contains degree project for Master of Arts/Master of Science (120 credits)

### Decision

This course syllabus was approved by the Board of Science at Stockholm University on 2021-06-17.

#### Prerequisites and special admittance requirements

Name

**Degree Project** 

Admission requires knowledge equivalent to a completed bachelor's degree, and at least 60 second-cycle credits in mathematics, mathematical statistics or computational mathematics, at least 45 of which must be in mathematics. Swedish upper secondary school course English B, or equivalent.

#### **Course structure**

Examination code HELA

Course content

The content of the course is decided by the supervisor after consultation with the student. The course intends to provide experience and knowledge in the scientific approach and scientific work in mathematics. The course work should be given a detailed description in a work plan that shall be approved by the main teacher before work begins.

#### Learning outcomes

After completing the course, the student is expected to be able to:

- independently gather in-depth knowledge in a mathematical subject matter
- present theoretical studies and own investigations in an independently written report
- · orally present knowledge and obtained results

#### Education

Teaching consists of supervision of thesis work.

The student is entitled to at least 20 hours of supervision, with individual supervision constituting at least one third of the time. Supervision is only provided within the planned course time. In the event of special circumstances, the student may be granted extended time for supervision. The request for this must be made to the department board.

In the event of special circumstances, the student has the right to change supervisors. The request for this



**30.0 Higher Education** 

**Higher Education Credits** 

30

30.0 ECTS credits

Credits

must be made to the department board.

### Forms of examination

a. The course is examined as follows: Assessment takes place through a written report and an oral presentation at a seminar.

The examination will be conducted in English.

The examiner can decide on adapted or alternative examination formats for students with disabilities.

b. The course has no compulsory instruction.

c. Grading: The course's final grade is set according to a seven-point criterion-referenced scale:

- A = Excellent
- B = Very good
- C = Good
- D = Satisfactory
- E = Adequate
- Fx = Failed, some additional work is required
- F = Failed, much additional work is required

d. The course's grading criteria are handed out at the start of the course. Basic assessment criteria are:

- 1. Understanding of the assigned task
- 2. Execution of the experiment/field work/theoretical task:
- 3. Knowledge of the theoretical background
- 4. Interpretation and analysis of results
- 5. Independence
- 6. Ability to keep the agreed timetable for the work
- 7. Presentation oral report
- 8. Presentation written report
- 9. Other

e. A minimum grade of E is required to pass the course.

e. Students who receive a failing grade on a regular examination are allowed to retake the examination as long as the course is still provided. The number of examination opportunities is not limited. Other mandatory course elements are equated with examinations. A student who has received a passing grade on an examination may not retake the examination to attain a higher grade. A student who has failed the same examination twice is entitled to have another examiner appointed, unless there are special reasons to the contrary. Such requests should be made to the department board. Under normal circumstances, the course includes at least three examination opportunities per academic year the course is offered. For the academic years that the course is not offered, at least one examination opportunity is offered.

f. Students awarded the grade Fx are given the opportunity to improve their grade to E. The examiner decides on the supplementary assignments to be performed and the pass mark criteria. The supplementary assignments will take place before the next examination opportunity.

#### 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 the course was discontinued. Requests must be made to the departmental board. The provision also applies in the case of revisions of the course syllabus and revisions of the required reading.

# Limitations

This course may not be included in a degree together with the course Mathematics, Degree Project (MM9007) or with equivalent courses.

#### Misc

This course is part of the Master's Programme in Mathematics, but may also be taken as a separate course. We recommend that students should have passed the mandatory courses in the local degree description should before starting their project work.

# **Required reading**

The required reading is based on scientific publications and reports in the relevant subject area identified by the student through literature searches and literature provided by the principal supervisor.