

Syllabus

for course at advanced level

Mathematical Statistics, Degree Project
Matematisk statistik, självständigt arbete

**30.0 Higher Education
Credits**
30.0 ECTS credits

Course code:	MT9013
Valid from:	Spring 2020
Date of approval:	2019-08-19
Department	Department of Mathematics (incl. Math. Statistics)
Main field:	Mathematical Statistics
Specialisation:	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 19 August 2019.

Prerequisites and special admittance requirements

Prerequisites are a Bachelor's degree or equivalent, and the courses Probability theory III, 7.5 ECTS credits (MT7047), Statistical models, 7.5 ECTS credits (MT7046) and Stochastic Processes and Simulation II, 7.5 ECTS credits (MT5012), or equivalent. Also one of the two courses Statistical Learning, 7.5 ECTS credits (MT7049) and Computer Intensive Statistical Methods, 7.5 ECTS credits (MT7024), and one of the two courses Statistical Consulting Methodology, 7.5 ECTS credits (MT8001), and Mathematical Communication, 7.5 ECTS credits (MM7020). Swedish upper secondary school course English B/English 6 or equivalent.

Course structure

Examination code	Name	Higher Education Credits
HELA	Degree project in mathematical statistics	30

Course content

The course consists of a supervised project. The planned work should be described in a written work plan that must be approved by the supervisor. Central parts of the work include planning, implementation and reporting of the scientific investigation. Search of literature, writing of a scientific report and the ability to present research results orally at a seminar are trained as well.

Learning outcomes

It is expected that the student after taking the course will be able to:

- demonstrate insights into research methods and results in mathematical statistics
- apply advanced mathematical statistics methods to solve a given task within a prescribed time limit
- display understanding of the given task and knowledge about the theoretical background
- demonstrate good ability in presenting acquired results orally and in written form.

Education

The teaching consists of supervision of project work.

Forms of examination

- a. The course is examined as follows: Assessment takes place through a

written report and oral presentation.

b. 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

c. The course's grading criteria are handed out at the start of the course.

Late submission of the degree project has consequences for the final grade of the course. These consequences are described in detail in the grading criteria 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

d. 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. The course includes at least two 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.

Limitations

The course may not be included in a degree together with the courses Mathematical Statistics, Degree Project (MS4110), or Mathematical Statistics, Degree Project (MT9001).

Misc

This course is part of the Master's Programme in Mathematical Statistics, but may also be taken as a separate course.

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 supervisor.