GÖTEBORG UNIVERSITY
Faculty of Sciences
Mathematical Sciences

MSA900, PROJECT COURSE IN MATHEMATICAL STATISTICS
for the Master’s Degree in Mathematical Sciences, 30 credit points

Course level: advanced

1. Authorisation
The course plan has been authorised by the vice-dean of the Department of Mathematical Sciences on November 9, 2006, to be valid from July 1, 2007.

Educational field: Mathematical sciences

2. Educational context
The course is part of the Master Program in Mathematical Sciences and is compulsory for the Master of Science Degree in Mathematical Statistics.

3. Prerequisites
To qualify for the course the student has to have accumulated at least 20 credit points in advanced or graduate courses in Mathematical Statistics.

4. Goals and learning outcomes
The purpose of the master’s project course is to develop student ability to

- identify relevant statistical and probabilistic questions and state these in the framework of adequate models
- compare and critically judge and choose between alternative models
- apply statistical and probabilistic techniques learned from the basic and advanced courses in the program with use of research literature and software
- write a report on non-trivial probabilistic or statistical topics involving the student’s own investigation
- give an oral presentation based on the written report.

5. Course description
In the course the student works alone or in a pair investigating a question in a specific area in Mathematical Statistics. The topic of the project course is determined jointly
by the examiner (course coordinator), the student, and the supervisor. The work process typically includes reading relevant scientific literature, building of statistical models and analysis of those by applying probability and statistical methods and by using properly chosen computer software. The results of the work are to be submitted as a Master's thesis report which shall be presented orally at a seminar.

6. Literature
See separate list.

7. Assessment
The final evaluation and grading of the student performance in the course is done by the examiner. It is based on the student's contributions during the work, which should be clearly stated in the thesis in the case of a pair project, and on the student's performance in the seminar presentation of the Master's thesis.

8. Grades
An approved Master's thesis project is graded by Pass (G), and High Pass (VG). A wish for an ECTS grade should be reported to the examiner at the beginning of the course.

9. Course evaluation
In the middle of the course the coordinator arranges a discussion with the students and the supervisor about their joint work. At the end of the course the students will be asked to answer a questionnaire. The results of the questionnaire will be processed by the course coordinator together with student representatives and the supervisors.

10. Additional information
The course may include compulsory joint activities such as scientific writing, presentation techniques, etc. All students are expected to attend the thesis presentations of their course mates.