

# Syllabus

for course at advanced level

**Master's Thesis in Statistics**

**Examensarbete i statistik för masterexamen**

**30.0 Higher Education**

**Credits**

**30.0 ECTS credits**

<b>Course code:</b>	ST740A
<b>Valid from:</b>	Autumn 2014
<b>Date of approval:</b>	2014-02-19
<b>Department</b>	Department of Statistics
<b>Main field:</b>	Statistics
<b>Specialisation:</b>	A1F - Second cycle, has second-cycle course/s as entry requirements

## Decision

This syllabus was approved by the Board of the Department of Statistics on February 19, 2014.

## Prerequisites and special admittance requirements

Bachelors' Degree including at least 90 ECTS credits in Statistics or equivalent. Probability Theory, AL, 7,5 ECTS credits, Inference Theory, AL, 7,5 ECTS credits, Multivariate Analysis, AL, 7,5 ECTS credits, Statistical Theory of Science, AL, 7,5 ECTS credits, Statistical Computation, AL, 7,5 ECTS credits, Statistical Methods, AL, 7,5 ECTS credits, or equivalent. Mathematics for Economic and Statistical Analysis, BL, 7,5 ECTS credits, or equivalent. Swedish upper secondary school course English 6 or equivalent.

## Course structure

Examination code	Name	Higher Education Credits
EX11	Master's Thesis in Statistics	30

## Course content

The course consists of one course unit:

1. Master's thesis in Statistics, including essay, oral presentation and opposition. The course mainly consists of an independent study within some statistical field. The election of field is made according to the interests of the student but may also be suggested by the tutor.

The course shall provide knowledge of how to deal with theoretical and practical problems concerning the planning, conducting and reporting of an individual study.

The course also provides knowledge of how to critically review a statistical study, what scientific literature exists in statistics and how to look for references, how to outline and write a scientific report and how to present one's results orally. The course provides knowledge of scientific and investigating work.

## Learning outcomes

After completing the course the student should be able to:

- critically, independently and creatively identify and formulate a research question
- demonstrate extended knowledge of statistical methodology
- plan, and with adequate methods, conduct qualified assignments within given time frames and thereby add to the development of knowledge.
- search for knowledge within statistical fields, including current research
- analyse, evaluate and handle advanced statistical problems

- in writing, document and evaluate a scientific work
- show the ability to make assessments with regards to relevant scientific, social and ethical aspects within statistics
- orally and in writing, account for and discuss, conclusions and the knowledge and arguments that form the base for these conclusions
- take into account research ethical problems in one's own work and in the work of others

### **Education**

Teaching forms consist of lectures, seminars and individual tutoring. A student who has begun the master's thesis has the right to a total of 20 hours of tutoring. A student who wishes to change tutor can, under certain conditions, contact the Director of Studies who, as far as resources allow, administrates the change.

### **Forms of examination**

a. Examination will be done by assessing the learning outcomes. Examination will be in the form of oral and written presentation.

b. Grading is done according to a seven-point scale related to the specified learning outcomes:

- A = Excellent
- B = Very Good
- C = Good
- D = Satisfactory
- E = Adequate
- Fx = Inadequate
- F = Totally Inadequate

c. When grading the master's thesis the following basis for assessment will be taken into account:

The realisation of the work, form, how the problem is formulated, delimitations, knowledge of the theoretical background, the interpretation and analysis of the results, a critical approach, literature, independence, the ability to keep the timeline for the work, oral and written presentation of the work and oral and written discussion on other's work. How the basis for assessment will be weighed will be stated in the assessment criteria for the course, which will be distributed at the beginning of the course.

d. In order to pass the course, the grade E or higher is required on the course unit.

e. Students who receive the grade Fx or F on an examination are entitled to at least four additional examinations to achieve the lowest grade E as long as the course is still given. If a student has received the grade Fx on the written reports but is close to passing the assignment, there may be a possibility to hand in an additional assignment. The assignment should be handed in within the given time frame and after the examiner having advised on the need to revise the assignment. Students who receive the grade E or higher on an examination may not retake this examination in order to attempt to achieve a higher grade. Students who receive the grade Fx or F on an examination twice by the same examiner are entitled to request that a different examiner be appointed to set the grade of the examination. Such a request must be in writing and sent to the head of the department. Here, the term examination denotes all compulsory elements of the course.

### **Interim**

When the course syllabus has been withdrawn, the student has the right to request examination once per term during a period of three terms in accordance with this syllabus. Such a request must be in writing and sent to the head of department.

### **Limitations**

The course may not be included in a degree together with the course Master Thesis (ST710A) 30 ECTS, the course Master Thesis (ST730A) 30 ECTS, or equivalent.

### **Misc**

A student who does not finish a commenced master's thesis on time when the course is given does not have the right to more tutoring. The student does have the right to get his or her master's thesis evaluated during the following examination opportunity. A student who does not finish a commenced master's thesis on time when the course is given loses the possibility to have the completed work assessed for any other grade than a C as highest, unless certain circumstances exist

### **Required reading**

The course literature is described in an appendix to the syllabus.