

Education plan

for

Master's Programme in Statistics

Masterprogram i statistik

**120 Higher Education Credits
120 ECTS credits**

Programme code:	SSTAO
Valid from:	Spring 2014
Date of approval:	2009-10-08
Changed:	2014-02-18
Department:	Department of Statistics

Decision

This education plan has been approved by the Faculty Board of the Social Sciences, Stockholm University on 8 October 2009 and revised on 18 February 2014.

Prerequisites and special admittance requirements programme

Bachelor's Degree, 180 HECs, including at least 90 HECs in Statistics or equal, and English B or English 6 from the Swedish upper secondary education or equal.

Programme structure

The main field is Statistics. The programme comprises two years of full time study (120 HECs). These include compulsory courses, 82.5 HECs, (including a Master's Thesis, 30 HECs) and elective courses, 37.5 HECs.

Instruction is given in the form of lectures, tutorials, seminars, and supervision for all the courses. Students work, as far as possible, independently with exercises and assignments. Language of instruction is mostly English.

The Master's programme builds on the knowledge and skills that students have acquired from first-cycle courses in Statistics up to 90 HECs. After completing the Master's programme, the student is expected either to be able to work independently with qualified statistical analysis in the private or public sector or to continue with postgraduate studies in statistics.

Goals

In addition to the general goals stated in the Swedish Higher Education Act (Chap. 1, art. 9), the following goals are spelled out:

Knowledge and understanding

For a Masters degree, the student should:

- demonstrate knowledge and understanding in statistics, both broad know-how in the subject in general as well as substantial depth in some specific areas of the subject and deeper insight in current research and development,
- demonstrate a deep methodological know-how in the main area, statistics.

Skills and ability

For a Masters degree, the student should:

- demonstrate ability to critically and systematically integrate knowledge and analyze, evaluate and handle

complex phenomena, problems and situations even in the light of limited information.

- demonstrate ability to critically, independently, and creatively identify and formulate research questions and plan as well as carry out qualified tasks using appropriate methods and within given time frames, and evaluate these - thereby contributing towards advancement of knowledge,
- demonstrate ability to present and discuss, orally and in writing, information, problems and solutions in dialogue with different groups nationally and internationally,
- demonstrate skills required in order to take part in research and development work or work independently in tasks that require qualified statistical competence.

Ability to make assessments and approach

For a Masters degree, the student should:

- demonstrate the ability to make statistical evaluation taking into account relevant scientific, social and ethical aspects,
- demonstrate an insight on the value of science and its limitations, its value in society as well as people's responsibility for how it is used,
- demonstrate the ability to identify his/her need for further knowledge and to take responsibility to promote his/her competence.

Courses

Compulsory courses

Mathematics for Economic and Statistical Analysis, 7.5 HECs

Probability Theory, 7.5 HECs

Statistical Inference, 7.5 HECs

Multivariate Analysis, 7.5 HECs

Statistical Computation, 7.5 HECs

Statistical Theory of Science, 7.5 HECs

Statistical Methods, 7.5 HECs

Master's Thesis in Statistics, 30 HECs

The compulsory courses are given in progression where the programme begins with Mathematics for Economic and Statistical Analysis, and Probability Theory. These are followed by Statistical Inference, Multivariate Analysis, and Statistical Computation in that order. Two other courses, Statistical Theory of Science, and Statistical Methods should also be taken before the student begins with the Master's Thesis in Statistics.

All the compulsory courses, except one, are given in the main field Statistics. The exception is Mathematics for Economic and Statistical Analysis, which is a first-cycle course in the main field Mathematics.

Elective courses

These courses, listed separately, are provided by the Department of Statistics and together add up to 37.5 HECs. The list of elective courses is decided by the Board of the Department of Statistics.

A total of 30 HECs from first-cycle courses can be included. Since 7.5 HECs in the compulsory courses come from first-cycle, the student can include a maximum of 22.5 HECs from first-cycle courses.

Further information about the courses and specific prerequisites are stated in the syllabi for the courses.

Exam

The programme leads to a Master of Science degree. The main field of study for the degree is Statistics.

Misc

Language: The programme is given mainly in English.

In the event the programme is terminated, students have the right to complete their education according to the latest existing education plan within the termination period which covers the usual time to complete the programme plus two years. Within such period, the programme is offered based primarily on the courses that make up the programme; else, an equivalent education is offered.

This is a translation of the Swedish original education plan.