UNIVERSITY OF GOTHENBURG

DEPARTMENT OF ECONOMICS

STK110 Statistics: Basic course 1 Introduction, 7.5 credits

Statistik: Grundkurs 1 Introduktion, 7,5 högskolepoäng

First Cycle

Confirmation

This course syllabus was confirmed by Department of Economics on 2020-12-10 and was last revised on 2023-02-15 to be valid from 2023-08-28, autumn semester of 2023.

Field of education: Social Sciences 100%
Department: Department of Economics

Position in the educational system

STK110 is a 7.5 credits course in Statistics within the first-cycle level.

The course can be part of the following programmes: 1) European Studies Program (S1EUR), 2) Bachelor's Programme in Logistic management (S1LOG), 3) Program in Environmental Social Science (S1SMI) and 4) Program in Political Science (S1STV)

Main field of studies	*Specialization*
Statistics	G1N, First cycle, has only upper-secondary level entry requirements

Entry requirements

General entrance requirements for university studies and the Swedish upper secondary courses English 6, Mathematics 3b/3c or equivalent.

Learning outcomes

On successful completion of the course the student will be able to:

1. calculate the probability of different events
2. draw correct conclusions about populations based on random samples
3. understand and handle both discret and continuous distributions
4. analyse large datasets using a computer programme
5. critically review statistical material and report (in writing) relevant aspects of it

How overall learning goals for the bachelor's degree are related to the learning outcomes of the course:

Overall learning goals	Learning goals
Knowledge and understanding	1, 2, 3
Skills and abilities	1, 2, 3, 4
Judgement and approach	5

Course content

In this course, the student will be introduced to basic statistics. The course covers a review of methods for compiling, presenting and calculating summary measures used to describe statistical data. This includes, among other things, measures of central tendency (mean, median, etc.) and measures of variability (standard deviation, variance, etc.).

To be able to interpret the statistical results, a basic understanding of probability is crucial. Therefore, the course also covers basic probability theory, as well as how probability for different events are affected by a variable's distribution. Finally, the basics in how information from sampling can be used to draw conclusions about populations are discussed. This is done by hypothesis testing, point estimation or interval estimation for a population.

When analyzing statistical data, the computer is an indispensable tool. The course therefore includes computer-based project work, which consists of a number of assignments, where the student gets both an exercise in and assessment of work with computer-based statistical analysis.

Form of teaching

The content of the course is presented mainly at lectures and in group exercises. A large part of the knowledge acquisition on the course is done through own work by the student.

Language of instruction: Swedish and English
Teaching activities in English may occur.

Assessment

The learning targets are examined through written assignments and written examination. A passing grade for the assignments requires that all assignments are approved within the same course round. A passing grade on the course require approved results in both of these parts and the course grade is based on the results of the

individual written exam.

Due to administrative reasons, the re-examination of the course may take place more than two months after the ordinary examination in the spring semester.

A student who has taken two exams in a course or part of a course without obtaining a pass grade is entitled to the nomination of another examiner. The student needs to contact the department for a new examiner, preferably in writing, and this should be approved by the department unless there are special reasons to the contrary (Chapter 6 Section 22 of the Higher Education Ordinance).

If a student has received a recommendation from the University of Gothenburg for special educational support, where it is compatible with the learning outcomes of the course and provided that no unreasonable resources are required, the examiner may decide to allow the student to sit an adjusted exam or alternative form of assessment.

In the event that a course has ceased or undergone major changes, students are to be guaranteed at least three examination sessions (including the ordinary examination session) over a period of at least one year, but no more than two years, after the course has ceased/been changed. The same applies to placements and professional placements (VFU), although this is restricted to just one additional examination session.

Grades

The grading scale comprises: Excellent (A), Very good (B), Good (C), Satisfactory (D), Sufficient (E) and Fail (F).

Course evaluation

Course evaluation is done digitally and anonymously at the end of the course.

The survey material is compiled and the results from the course evaluation and proposals for possible improvement measures are discussed at the course committee meeting. After the course evaluation is completed, the result will be published at the course homepage.

If a change of course is done based on the course evaluation, this will be communicated at the course introduction for the upcoming student group

Additional information

Limitations: The course may not be included in the same degree as the courses STK101, STK100, STK175, STG170, STG175 or STG150.