UNIVERSITY OF GOTHENBURG

DEPARTMENT OF ECONOMICS

STK100 Statistics 1, 15 credits

Statistik 1, 15 högskolepoäng

First Cycle

Confirmation

This course syllabus was confirmed by Department of Economics on 2019-08-07 and was last revised on 2020-12-17 to be valid from 2021-01-18, spring semester of 2021.

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

Position in the educational system

The course is a 15 credits course in statistics within the first-cycle level.

The course can be part of the following programmes: 1) European Studies Program (S1EUR) and 2) 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 B, Mathematics C, Civics A or English 6, Mathematics 3b/3c, Civics 1b/1a1-1a2 or equivalent.

Learning outcomes

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

1. calculate the probability of different outcomes.
2. based on random samples draw correct conclusions about populations.
3. analyse, describe and explain how a variable co-varies with another.
4. analyse large datasets using a computer programme.

5. critically assess 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 outcomes
Knowledge and understanding	1+2
Skills and abilities	1+2+3+4
Judgement and approach	5

Course content

The course covers methods for compiling, presenting and calculating summary measures used to describe statistical data. Basic probability is also covered. Furthermore, hypothesis testing, point estimations and interval estimations for a population are treated. When analyzing statistical data, the computer is an indispensable tool.

The course also covers statistical methods for assessment of uncertainty of conclusions drawn from random samples. The course includes classical hypothesis testing, significance levels and various tests to determine differences. Examples of test situations addressed in the course are tests of differences between the parameters of two or more populations. The course also includes methods for testing how “close” the achieved result is to the expected result, as well as methods for testing of whether the distribution of a variable is independent of different categories.

Methods for analysing and interpreting both linear and non-linear relationships between two or more variables are also covered, including tests of statistical significance. The students also learn how correlation between independent variables can influence relationships found. The course includes computer-based project work consisting of a number of assignments.

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
Teaching activities in English may occur.

Assessment

The learning targets are examined through written assignments and a written examination. A passing grade for the course requires passing grades for both these parts. A passing grade for the assignments requires that all assignments are approved within the same or at most two adjacent course rounds.

An examined element that is not passed can be supplemented to a pass grade.

If a student, who has failed the same examined component twice, wishes to change examiner before the next examination, a written application shall be sent to the Department of Economics and shall be granted unless there are special reasons to the contrary (Chapter 6, Section 22 of Higher Education Ordinance).

In cases where a course has been discontinued or has undergone major changes, the student shall normally be guaranteed at least three examination occasions (including the ordinary examination) during a period of at least one year from the last time the course was given.

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

1. Transitional rules: The course replaces the "Statistics 1, 15 credits". (STG170)
2. Limitations: The course may not be included in the same degree as the course STG170, STG175 or STG150.