UNIVERSITY OF GOTHENBURG

DEPARTMENT OF ECONOMICS

STK140 Statistics 2B, 7.5 credits

Statistik 2B, 7,5 högskolepoäng

First Cycle

Confirmation

This course syllabus was confirmed by Department of Economics on 2019-08-07 and was last revised on 2019-11-15 to be valid from 2020-01-20, spring semester of 2020.

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

Position in the educational system

This is a 7.5 credits introductory course in statistics at 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	G1F, First cycle, has less than 60 credits in first-cycle course/s as entry requirements

Entry requirements

Admission to the course requires previous knowledge of statistics 15 ECTS or equivalent.

Learning outcomes

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

1. perform ANOVA for independent populations and repeated measurements
2. perform MANOVA for independent populations
3. perform principal component analysis and factor analysis
4. perform stratified sampling and cluster selection

5. critically review statistical material and methods and relate to their limitations

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

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

Course content

The course deals with methods for assessing the uncertainty in the conclusions drawn from a limited amount of information. In statistical analysis, the computer is an indispensable tool. Therefore, the course is largely based on computer-based project work.

The course includes methods to analyze and interpret linear models and relationships between two or more quantitative and / or qualitative variables. In particular, the course aims to provide an in-depth knowledge of linear models. Methods for examining and managing the common problems that may arise when estimating statistical models are included.

In addition, the course includes methodology for stratified sampling and cluster sampling. The course also highlights ethical aspects in data collection and statistical analysis.

Form of teaching

The course content is presented at lectures and when handing in assignments. 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 outcomes are examined through written assignments and a written exam. To be given a passing grade on the course, passing grades are required on both of these parts. A passing grade for the assignments requires that all are approved within the same or at most two adjacent course rounds.

If a student, who has failed the same examined element on two occasions, wishes to change examiner before the next examination session, such a request is to be submitted to the department in writing and granted unless there are special reasons to the contrary (Chapter 6, Section 22 of Higher Education Ordinance).

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, though at most two years after the course has ceased/been changed.

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 course "Statistics 2B" STG182.

2. Limitations: the course cannot be used in a degree together with STG160, STG180 or STG182.