

Syllabus

for course at advanced level

Introduction to Quantitative Data Management and Statistics

Introduktion till kvantitativ datahantering och statistik

7.5 Higher Education

Credits

7.5 ECTS credits

Course code:

SO7365

Valid from:

Autumn 2018

Date of approval:

2011-09-29

Changed:

2018-08-28

Department

Department of Sociology

Main field:

Demography

Specialisation:

A1N - Second cycle, has only first-cycle course/s as entry requirements

Decision

The syllabus is approved by the Board of the Department of Sociology 2018-08-28.

Prerequisites and special admittance requirements

Bachelor's degree, English 6

Course structure

Examination code	Name	Higher Education Credits
1M65	Introduction to Quantitative Data Management and Statistics	7.5

Course content

The course provides an introduction to quantitative data, management and basic statistics in terms of basic variable construction and data file management, documentation of variable construction and analysis procedures, analysis planning, and conducting descriptive and uni/bivariate analyses.

Learning outcomes

After having completed the course, students are expected to be able to:

In terms of understanding types of data:

- Identify the different constructions and purposes of micro and macro-level data, cross-sectional and longitudinal data, survey and register data

- Understand how to link questionnaires to data sets and identify filters

- Assess the limitations of data sources in relation to the timing of the information available

In terms of documentation and ethics:

- document variable constructions, data file management, and analysis procedures in such a way that replication is facilitated

- understand the significance of research ethics in quantitative data management

In terms of data management:

- use STATA to manipulate and analyze data

- construct variables based on one and/or several pre-existing variables

- manipulate the shape and size of data sets by reshaping or merging and appending other data sources

- clean the data of errors and inconsistencies

- use survey weights for descriptive analyses

In terms of analysis planning:

- judge whether a variable is suitable or not for a specific research question and understand the different types

of variables

- write an analysis plan containing operationalizations, basic variable construction and descriptive statistics, and a discussion of relevant methodological problems

In terms of basic statistics:

- describe variables in terms of distribution, percentages, mean, median and variance
- conduct bivariate analyses
- make correct inferences from a sample to a population and understand confidence intervals

Education

Course participants and instructors meet for lectures, computer-based exercises and/or seminars. In the event of compulsory elements, the course schedule specifies that.

Forms of examination

The course assignments consist of computer-based exercises, written and oral presentations.

Students are expected to complete eight individual assignments independently, which accounts for 40% of their grade. The remaining 60% of their grade is based on their final assignment, which includes an analysis plan and codebook.

The student's achievement is evaluated according to the following criterion-referenced assessment:

A = Excellent

B = Very good

C = Good

D = Satisfactory

E = Sufficient

Fx = Insufficient

F = Fail

A = Excellent. The student has completed all exercises and has demonstrated excellent practical and analytical skills in independently handling and evaluating quantitative data.

B = Very good. The student has completed all exercises and has demonstrated very good practical and analytical skills in independently handling and evaluating quantitative data.

C = Good. The student has completed all exercises and has demonstrated practical and analytical skills in handling and evaluating quantitative data

D = Satisfactory. The student has completed all exercises and has demonstrated practical and analytical skills in handling and evaluating quantitative data with support

E = Sufficient. The student has successfully completed all exercises and has demonstrated practical and analytical skills in handling and evaluating quantitative data with substantial support

Fx = Insufficient. The student has not successfully completed all exercises

F = Fail. The student has not completed any of the exercises

Students with grade Fx or F at an exam are entitled to take another exam as long as the course is provided in order to obtain grade E at least. A student with E or higher is not entitled to another examination to raise his/her grade. Students who received grade Fx or F on exams twice from the same examiner can request to be evaluated by another examiner. Such request should be sent to the Director of Studies.

Examination takes place during the course and there is a final exam at the end of the course. All course work must be submitted no later than one week after completion of the course to be examined during the current course. If a student fails to meet this deadline or leaves at least one task with significant errors that must be resubmitted, examination will take place in connection with the course being given the next semester or at the reexamination.

Plagiarism, cheating and unauthorized cooperation

It is the responsibility of the student to be familiar with the rules for examination. Detailed information is available at Stockholm University's website www.su.se/regelboken. Teachers are obliged to report suspicion of cheating and plagiarism to the Director of Studies and the Disciplinary Board. An example of plagiarism is to formally or almost verbatim copy a text (even a single sentence) without indicating where this comes from. This also applies to texts you have previously written (self-plagiarism). Study groups are encouraged, but when it comes to individual course work, students must take care to submit independent work and not unauthorized cooperation.

Interim

Students can request to be examined in accordance with this syllabus up to three semesters after it has ceased to be valid. Such request should be sent to the Director of Studies.

Required reading

Current literature list is available no later than two months before the start of the course.