Department of Sociology



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:
Valid from:
Date of approval:
Department

Main field: Specialisation: SO7365 Autumn 2011 2011-09-29 Department of Sociology

Demography 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 as of September 29 2011.

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

This is a translation of the Swedish original Page 1/2

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. Course participants submit exercises and comment on peers' exercises in MONDO and/or during seminars. The course is offered in English. In the event of compulsory elements, the course schedule specifies that.

Forms of examination

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 successfully 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

E is required to pass the course. Students with the grade Fx are offered the opportunity to upgrade his or her grade. Students with the grade F or Fx are entitled to another examination as long as the course is provided in order to achieve at least grade E.

Interim

Students who have been graded Fx or F twice by the same examiner can request to have another examiner on the next occasion. Such request should be sent to the Director of Studies.

Limitations

Students can request to be examined in accordance with this syllabus up to three semesters after it has ceased to be valid.

Required reading

Articles and handouts.

Suggested readings:

Baum, C.F. (2009). An introduction to STATA programming, College Station, Tex.: STATA Press. Treiman, D. (2009). Quantitative Data Analysis: Doing Social Research to Test Ideas. John Wiley and Sons.