

Syllabus

for course at advanced level

Quantitative Methods in the Social Sciences 2
Kvantitativ samhällsvetenskaplig metod 2

**7.5 Higher Education
Credits**
7.5 ECTS credits

Course code:	SO7033
Valid from:	Autumn 2017
Date of approval:	2016-10-25
Department	Department of Sociology
Main field:	Sociology
Specialisation:	A1N - Second cycle, has only first-cycle course/s as entry requirements

Decision

The syllabus was approved by the Board of the Department of Sociology 2016-10-25.

Prerequisites and special admittance requirements

Bachelor's Degree, English 6 and Quantitative Methods in the Social Science 1 or equivalent.

Course structure

Examination code	Name	Higher Education Credits
1M17	Quantitative Methods in the Social Sciences II	7.5

Course content

The course deals with advanced applications of linear regression (such as interactions, transformations, marginal effects, testing hypothesis, decomposition methods, measurement errors), linear regression extensions (multilevel and panel data models), as well as models for discrete outcomes (binary, ordered and multinomial logit). In the course, emphasis is placed on the craft, i.e., to implement, understand and interpret analyzes with the aforementioned methods rather than statistical theory, although some statistical theory is included as part of the deeper understanding required by the course. In addition, the course provides an overview of research traditions in quantitative social sciences (such as experiments, quasi experiments, observation data models) as well as the problems of causality. The course focuses on computer exercises where the course participants themselves work with analyzing a data material.

Learning outcomes

Knowledge and understanding

After the course, the student will:

- have a good knowledge of advanced applications of linear models (such as interactions, transformations, margin effects, hypothesis test, decomposition methods, measurement errors) focusing on how the models are interpreted, as well as the statistical basics of these approaches
- have a good knowledge of linear model extensions (multilevel regression and panel data analyzes), focusing on how the models are interpreted, as well as the statistical basics of these methods
- have a good understanding of models for discrete outcomes (linear probability models, binary logit, ordered logit and multinomial logit), focusing on how the models are interpreted, as well as the statistical basics of these methods
- understand the basic problems of causal inference in social sciences.
- have knowledge of different research traditions within quantitative social sciences

Skills and competence

After the course, the student will:

- independently be able to perform, present and interpret results for advanced linear model applications
- independently be able to perform, present and interpret the results for linear model extensions
- independently be able to perform, present and interpret results for discrete outcomes models.
- practically as well as theoretically analyze model specification and functional form, and address potential problems and sources of error, be able to compare and evaluate different regression models.

Values and approaches

After completing the course, the student should be able to:

- assess and critically evaluate the results of published quantitative analyzes in social science research based on the methods discussed in the course
- Understand which methods are appropriate as well as unfit to use, given data, dependent variables and questions.

Education

Teaching is given in the form of lectures, practical exercises in a computer room, as well as seminars.

Forms of examination

The course is examined through assignments, most of which are based individual computer exercises, but also on interpretations of existing analyzes. The assignments are conducted in groups and individually.

Grades are based on a seven-way goal-related grade scale A-F:

- A = Excellent
- B = Very good
- C = Good
- D = Satisfactory
- E = Sufficient
- Fx = Insufficient
- F = Fail

The rating is based on a total assessment of all assignments. Each task examines one or more of the expected course outcomes and each expected course outcomes is examined through one or more assignments. Course objectives are graded for each task in three steps: Good, Sufficient (with some shortcomings) and Not sufficient. The final grade mark is the result of an aggregation of results from the different course outcomes. The final grade mark is not a summary of the participle marks. The more statistically complex and theoretically demanding submission tasks that are conducted individually, have a greater weight in the grade. A weak result on a course objective is also not offset by a strong result on another course object, since the final grade reflects the lowest level of knowledge achieved in all course objects rather than the average knowledge of these goals. Which learning outcomes are examined by which or which assignments are given in the course description for each semester.

If an assignment is graded with Not sufficient, the course mark will be automatically Not sufficient. If more than one assignment is graded with Not sufficient, the course mark will be Fail. If one assignment is missing, the grade will be Fail.

Students who have been given the grade Fx or F are entitled to undergo further examinations as long as the course is given in order to obtain at least the grade E. Students who have passed the grade E on a test may not do the course again in order for a new grade or higher grades. Students who have been given Fx or F twice by an examiner are entitled to request another examiner to be appointed to determine the grade of the exam. Proposals for this must be made to the Director of Studies.

Examination takes place twice a year: first at the end of the course, and then again half a year after the end of the course. Submissions must be handed in no later than one week after completion of the course to be examined during the current semester. If a student fails to meet the deadline or leaves at least one task with significant errors, examination will take place at the next deadline.

Plagiarism, cheating and unauthorized collaboration (collusion)

As a student, you are responsible for knowing the regulations in relation to examinations and similar situations. Extensive information is available at the website of the Department of Sociology as well as the Stockholm University website (www.su.se/rules). Teachers are obliged to report suspected cheating or plagiarism. If suspicions can be confirmed it will be brought before the Disciplinary Committee and may lead

to suspension. Example of plagiarism is to copy a text or sentences, word by word or close to, without referring to the source. This applies also to text of your own previous writing. Cheating includes bringing unauthorized aids to a sit-in exam, such as mobile phones. To form study groups together with fellow students is enriching and time saving, but when it comes to examinations you need to be meticulous about working independently (if not otherwise instructed) to avoid collusion.

Interim

Student can request to be examined according to this syllabus unto three semesters after it has ceased to be valid. The request is to be directed to the Director of Studies.

Required reading

Required literature: Bryman, Alan and Melissa A Hardy. 2009. Handbook of data analysis. London: Sage. (e-book: <http://methods.sagepub.com/book/handbook-of-data-analysis>, SU computer requires) Articles and handouts specified in the course description and handed out during the course.