Syllabus

The name of the education: Quantitative Methods in the Social Sciences II, 7.5 Credits

Code: SO1FU16

Finalized by: Institutionsstyrelsen, 2025-01-28

Valid from: Autumn semester 2025 (2025-09-01)

Level within study regulation: Third cycle

Course modules: Quantitative Methods in the Social Sciences II, 7.5 Credits

1. Entry requirements

No Translation Available

2. Learning outcomes

Knowledge and understanding

After completing the course, the student should:

have good knowledge of advanced applications of linear models (interactions, transformations, marginal effects, hypothesis tests, decomposition methods, measurement errors) with a focus on how the models are interpreted, and the statistical foundations of these approaches

have a good knowledge of extensions of linear models (multilevel regression and panel data analysis) with a focus on how the models are interpreted, as well as the statistical foundations of these methods.

have good knowledge of models for discrete outcomes (linear probability models, binary logit, ordered logit and multinomial logit) with a focus on how the models are interpreted, as well as the statistical foundations of these methods - understand the basic problems of causal inference in the social sciences.

have knowledge of different research traditions in quantitative social science.

Skills and competences

After completing the course, the student should:

independently perform, present and interpret the results for advanced applications of linear models

independently perform, present and interpret the results for extensions of linear models

independently perform, present and interpret the results for models for discrete outcomes

both practically and theoretically analyze model specification and functional form, and potential problems and sources of error, be able to compare and evaluate different regression models.

Values and approach

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

assess and critically evaluate results from published quantitative analyses in social science research based on the methods covered in the course.

understand which methods are appropriate and inappropriate to use, given data material, dependent variables and questions.

3. Content

The course deals with advanced applications of linear regression (such as interactions, transformations, marginal effects, hypothesis tests, decomposition methods, measurement errors), extensions of linear regression (multilevel and panel data models), and models for discrete outcomes (binary, ordered and multinomial logit). The course emphasizes the craft of conducting, understanding and interpreting analyses in the mentioned methods rather than statistical theory, although some statistical theory is included as part of the deeper understanding required by the course. In addition, an overview is given of research traditions in quantitative social science (e.g. experiments, quasi-experiments, models for observational data) and the problems of establishing causality on the basis of quantitative analysis. The central part of the course is data exercises where the course participants themselves work on analyzing a data set.

4. Mandatory exams

Attendance at the lectures is mandatory.

5. Forms of examination

The course is examined through assignments, most of which are based on own computer exercises but also on interpretations of already completed analyses. Assignments are carried out both in groups and individually.

Grading is done according to the grading scale pass or fail. In order to obtain a passing grade for the course, a minimum of a passing grade is required on all examination assignments, completed compulsory assignments and completed attendance.

Doctoral students must achieve at a minimum grade C in the final grading to pass the course.

The written grading criteria are communicated to students at the start of the course.

Examination takes place three times a year: during the course and at the beginning and end of the following semester. If a student does not meet the deadline or submits at least one assignment with significant errors, the examination takes place at the next deadline.

Plagiarism, cheating, and unauthorized collaboration or use of AI

Part of your responsibility as a student is to know the rules for examination. Detailed information can be found on Stockholm University's website here. Teachers are obliged to report suspected cheating and plagiarism to the Vice-Chancellor and the Disciplinary Board. Plagiarism and cheating is always a disciplinary matter and can lead to suspension. An example of plagiarism is copying a text verbatim or almost verbatim (including single sentences or lines of programming) and not indicating where it comes from. Always make sure that an acknowledgement and quotation marks are used when you submit text you did not write yourself . This even applies to texts you have written before (self-plagiarism). Cheating also includes, for example, the use of unauthorized aids, such as a mobile phone or generative AI, on a test. Having study groups together is stimulating and time-saving, but

when it comes to examination assignments, you must be careful to work on your own (unless clearly stated otherwise), so as not to risk being counted as unauthorized collaboration. Generative AI, including ChatGPT, can be useful, for example in editing your own writing. However, the use of ChatGPT or similar tools in examination assignments without the examiner's explicit permission and without acknowledgement is considered cheating.

Interim provisions

Students may request that examination according to this syllabus be completed up to three semesters after it expires. The request is to be directed to the Director of Studies.* *This regulation is valid for all assessed parts of the course.

Limitations

Those who have passed the course SO7030 Quantitative Methods in the Social Sciences or SO7033 Quantitative Methods in the Social Sciences II, or equivalent, cannot be accepted to SO1FU16.

6. Form of instruction

Teaching is given in the form of lectures, practical exercises in the computer room, and seminars.

Course literature

The current reading list is available no later than two months before the start of the course.