

Quantitative Methods, 7,5 HE credits

Kvantitativa metoder, 7,5 hp

Established: 2021-06-01

Established by: Department for Social and Behavioural Studies

Applies from: H21

Learning outcomes

Upon completion of the course, the third-cycle student should be able to:

Knowledge and Understanding

- explain quantitative and statistical concepts (probability distribution, statistical significance, measurement error and generalizability)
- explain how research strategies and analysis of numerical data can be used for finding answers to research questions

Competence and Skills:

- formulate, evaluate, and critically review quantitative research questions
- use software to carry out quantitative analyses, such as descriptive statistics, test-retest reliability, regression analysis, tests for statistical significance, and factor analysis)
- critically review quantitative studies

Judgement and Approach

- demonstrate an ethical approach and conduct when using quantitative research designs and results from quantitative studies.

Entry requirements

Anyone who has been admitted to a third-cycle programme and has received a passing grade in a third-cycle course on quantitative methods 7,5 credits is a qualified applicant.

The forms of assessment of student performance

- Oral presentation and defense of individual paper, at seminars
- Submission of a paper, written individually

Course contents

This course covers the different methods used for analysing quantitative data. It provides more in-depth knowledge of the way descriptive statistics can be applied when summarizing and clarifying numerical material. Test-retest reliability and a number of variations on tests for statistical significance are dealt with during the course. Also covered are in-depth knowledge and skills in using mathematical models for examining to what degree variables

‘explain’ another variable. A concrete example of this is researching to what degree trust in one’s own ability, knowledge of the subject at hand, and work experience can explain to what extent an individual experiences the need for continuing professional development.

Regression analysis is the collective term for this type of mathematical and statistical model. Structural equation modeling, which is a natural extension of regression analysis, is introduced and exemplified.

During the course there will be traditional lectures, during which the third-cycle student is requested to pose questions and air objections. In practice, the instruction is therefore something between more traditional teaching and a newer, significantly more participatory style of instruction. During their studies, the third-cycle student is asked to contribute their own concrete problems that can be discussed, problematized, and in some way solved within the framework of the course. The third-cycle student’s contributions of concrete examples taken from their own work experience or from an ongoing doctoral studies project are cornerstones of the course and clear, important examples of the way scientific and academic knowledge can be integrated into the practical problems that students have themselves experienced.

Other regulations

Course grading: Failed or Passed

Course language: The teaching is conducted in English.

Cycle

Third cycle