SAKA003, Quantitative Methods, Multivariate Analysis, 7.5 credits, third cycle

The course was adopted by the Board of the Lund University Faculty of Social Sciences 9 February 2016 and the syllabus approved by the Research Studies Council 25 November 2015.

This syllabus is valid from the spring semester 2016.

A. General information
The course is offered by the Faculty of Social Sciences as an interdisciplinary third-cycle course in quantitative methods for the social sciences.

Language of instruction: English

B. Learning outcomes
Knowledge and Understanding:
Upon completion of the course, the student shall demonstrate:

- knowledge of the multivariate statistical techniques most commonly used within the social sciences
- an understanding of the kind of research questions that each method/technique can be used to address
- an ability to summate and – in a highly knowledgeable, independent and theoretically informed way – reflect on advanced quantitative research findings within a defined research area

Competencies and Skills:
Upon completion of the course the students shall, independently and with proficiency, demonstrate:

- basic skills in performing an analysis using the different techniques covered in the course, including but not limited to multiple regression analysis, logical regression and factor analysis
- a deeper understanding of at least one of the statistical techniques covered in the course

Judgment and Approach:

- an ability to independently and critically reflect on the relationship between complex research questions and statistical techniques
- an ability to independently and critically assess the scientific value of research where multivariate statistical techniques are used
C. **Course content**
The aim of this course is for students with some prior knowledge of quantitative methods to further develop their understanding of, and ability to independently perform, statistical analysis of social science research questions. Some of the multivariate statistical techniques most commonly used within the social sciences are presented and practiced. The focus is on the relationship between complex research questions and different multivariate statistical techniques. Through the writing of a “research overview”, students gain a deeper understanding of the statistical techniques used and develop their ability to evaluate and integrate different research findings within a research area of their choice.

D. **Course design**
Teaching includes lectures, teacher assisted exercises in practical statistical analysis (computer lab work) and seminars. The course is teaching intensive and requires a high degree of participation.

E. **Assessment**
The learning outcomes related to practical analysis are examined through individual “lab-reports”. Each statistical technique is examined separately. The learning outcomes related to critical assessment of quantitative research are examined through the writing of an individually authored research overview.

Three opportunities for examination are offered in conjunction with the course: a first examination and two re-examinations. Within a year of the conclusion of the course, two further re-examination opportunities on the same course content are to be offered. After this, further reexamination opportunities are offered but in accordance with the then current course syllabus.

F. **Grades**
The grades awarded are Pass or Fail. To be awarded a grade of Pass, students must have attained the learning outcomes stated for the course.

At the start of the course students are informed about the learning outcomes stated in the syllabus and about the grading scale and how it is applied in the course.

G. **Entry requirements**
The course is primarily intended for students admitted to a third-cycle programme. If a selection of participants is necessary, doctoral students at the Faculty of Social Sciences have priority.