



APPLIES TO ACADEMIC YEAR 2003/2004

GRA 6020 Multivariate Statistics

Program

N/A

Responsible for the course

Ulf Henning Olsson

Department

Economics

Term

According to study plan

ECTS Credits

6

Objective

- To understand and be able to apply some of the most known multivariate statistical techniques to research problems in the student's discipline of interest.
- To illustrate the use of actual statistical software. It is the responsibility of the student to familiarize himself/herself with the fundamentals of this or similar statistical analysis software.
- To provide an understanding for the statistical assumptions underlying these techniques.

Prerequisites

An introductory course in statistics.

Compulsory literature

Hair, Joseph F., Rolph E. Anderson, Ronald L. Tatham and William C. Black. 1998. *Multivariate data analysis*. 5th ed. N.Y.: Macmillian.

Selected articles and handouts.

Jøreskog, Karl G. and Dag Sörbom. 1995. *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Chicago Scientific Software International

Recommended literature

Gujarati, Damodar N. 2003. *Basic econometrics*. 4th ed. New York: McGraw-Hill.

Course outline

1. The idea of significance testing.
2. The linear regression model.
3. Factor analysis
4. Exploratory factor analysis
5. Confirmatory factor analysis
6. Cluster analysis

Computer-based tools

The course uses modern statistical software.

Course structure

Lecture format.

Evaluation

Term paper. Groups (up to three students)

Evaluation code(s)

GRA60201 Term paper, which accounts for 100 % of the grade in GRA 6020, 6 ECTS credits

Aids at the examination

All aids are allowed.

Makeup exam
At the next regular exam.