



APPLIES TO ACADEMIC YEAR
2002/2003

GRA 6020 Multivariate Statistics

Program

Master of Science (common course)

Responsible for the course

Ulf Henning Olsson

Department

Economics

Term

Fall

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 of max. two students

Evaluation code(s)

GRA60201

Aids at the examination

Makeup exam

At the next regular exam.