DRE 1011 Quantitative Research Methods: Multivariate Statistics

Program

Responsible for the course
Ulf Henning Olsson

Department
Department of Economics

Term
According to study plan

ECTS Credits
6

Language of instruction
English

The course dates spring 2009 are :

March 2 from 13:00-16:00 in room A2-005
March 23 + 24 from 10:00-12:00 again 13:00-16:00 in room A2-005
April 27 from 10:00-12:00 again 13:00-16:00 in room A2-035
May 19+20 from 10:00-12:00 again 13:00-16:00 in room A2-005

The course will be taught in two modules (or three modules). Each module consists of 3*5 hours (e.g., 3 days and 5 hours per day)
Students are required to participate in class.

Objective
Goals:
The aim of the course is to give the students training in areas of advanced multivariate statistics, by teaching them some of the most popular computer based methods applied in social science statistics. The course will also focus on basic statistical theory as well as on critical use of statistics in research. There will also be discussions and presentations of some of the latest research within parametric methods and non-normality.

Learning outcome:
After undertaking this course the student should be able to apply several multivariate statistical techniques, use modern statistical software and apply these on their research projects. They should also have acquired enough basic knowledge so that they on their own can extend their statistical "tool box."

Prerequisites
Admission to a PhD Programme is a general requirement for participation in PhD courses at BI Norwegian School of Management.

External candidates are kindly asked to attach confirmation of admission to a PhD programme when signing up for a course with the doctoral administration. Candidates can be allowed to sit in on courses by approval of the courseleader. Sitting in on courses does not permit registration for courses, handing in exams or gaining credits for the course. Course certificates or conformation letters will not be issued for sitting in on courses

Compulsory literature
Books:
Meyers, Lawrence S., Glenn Gamst and Anthony J. Guarino. 2006. Applied multivariate research: design and interpretation. Thousand Oaks, Calif. : Sage. Ch. 1-6 and 8-9 and 12-14

Collection of articles:
A collection of articles

Other:
Handouts

Recommended literature

Course outline
The following methods will be covered

Module 1
Regression analysis (OLS and 2SLS)
Logistic Regression

Module 2
Analysis of Variance
EFA (Exploratory factor analysis)

Module 3
CFA (Confirmatory factor analysis)
SEM (Structural Equation Modeling)

Computer-based tools

Software: SPSS and LISREL 8.80

Course structure

Evaluation
Individual term paper will account for 100% of the grade. The paper should be original work, and be written specifically for this course.
Term paper will use the ECTS grading scale, A- F

Evaluation code(s)
DRE 10111 counts for 100% of the final grade.

Aids at the examination
Not applicable

Makeup exam
Next time the course is offered

Honour Code
Academic honesty and trust are important to all of us as individuals, and represent values that are encouraged and promoted by the honour code system. This is a most significant university tradition. Students are responsible for familiarizing themselves with the ideals of the honour code system, to which the faculty are also deeply committed.

Any violation of the honour code will be dealt with in accordance with BI's procedures for cheating. These issues are a serious matter to everyone associated with the programs at BI and are at the heart of the honor code and academic integrity. If you have any questions about your responsibilities under the honour code, please ask.