GRA 6437 Marketing Research and Multivariate Analysis

Programme
Master of Science in Business (Marketing), Master of Science in Strategic Marketing Management, Specialization Course

Responsible for the course
Auke Hunneman

Department
Department of Marketing

Term
According to study plan

ECTS Credits
6

Language of instruction
English

Introduction
In this course you will learn to analyze and interpret multivariate analysis techniques with the purpose to reduce the uncertainty and increase the profitability of marketing decisions. This course builds on knowledge the students are assumed to have acquired in previous marketing research and data analyses courses.

The focus in the course is to teach the students to use data analyses tools in selected cutting-edge multivariate analysis techniques along with the ability to understand where each technique can best be used.
This is not a statistics course - even though all the techniques are based on the theory of statistics, the approach taken here is managerial-based, rather than formula-based. Therefore, you will not be a statistics expert at the end of this course. The course focuses in training students to know and apply the techniques in a practical manner.

Students are expected to have working knowledge of SPSS or an equivalent software (e.g. JMP/R) before the course starts.

Learning outcome
The overriding learning outcome is to be able to see the particular benefits of analytic decision-making in marketing. Closely related to this ability is the ability to discern and choose between various possible analysis techniques as well as the ability to apply the chosen technique appropriately, given the need to solve a particular marketing problem. A relevant marketing problem would typically be the research questions the students address in their master thesis.

To achieve this general learning outcome, the students must be able to the following:

Explain the differences and similarities between key techniques.
Understand each technique in terms of:
 - The underlying design providing the data
 - Its statistical principles
 - Its assumptions
 - Its output
Interpret the outputs (results)
Communicate/write up the results

Prerequisites

All courses in the Masters programme will assume that students have fulfilled the admission requirements for the programme. In addition, courses in second, third and/or fourth semester can have spesific prerequisites and will assume that students have followed normal study progression. For double degree and exchange students, please note that equivalent courses are accepted.

Compulsory reading
Books:
Janssens, Wim ... [et al.]. 2008. Marketing research with SPSS. Prentice Hall/Financial Times
Malhotra, Naresh K. 2010. Marketing research : an applied orientation. 6th ed. Pearson

Collection of articles:
A collection of scientific articles

Other:
During the course there may be hand-outs and other material on additional topics relevant for the course and the examination.

Recommended reading

Course outline
- Problem definition, design (experimental and survey-based) and data sources
- Data analysis
- Data interpretation
- Presentation of results

Computer-based tools
JMP
Lisrel
R
SPSS

Learning process and workload
A course of 6 ECTS credits corresponds to a workload of 160-180 hours.

The learning process of this course involves learning the principles underlying various important statistically based techniques in practical marketing research and theoretical research in marketing and hands-on practice with these methods. In particular,

Part 1 - Identify and design the project, prepare data for analysis and consider the quality of the data

Part 2 - Analyse data using appropriate statistical techniques:
 1. A refresher on univariate statisitcs
 2. ANOVA (Factorial design) for testing experimental data
 3. ANOVA with repeated measures for testing multiple responses in an experiment
 4. ANCOVA and mediation analysis
 5. OLS regression analysis for prediction purposes and hypothesis testing
 6. Logistic regression analysis for prediction purposes
 7. Factor analysis for customer segmentation
 8. Conjoint analysis for designing optimal product and service offerings

This list may be subject to change.
Part 2 will be thought partly in ordinary class sessions and partly in data laboratory classes

Part 3 - Interpret the results

Part 4 - Write-up of results

Please note that while attendance is not compulsory in all courses, it is the student's own responsibility to obtain any information provided in class that is not included on the course homepage/It's learning or text book.

Examination
The course grade will be based on the following activities and weights:
A 3-hour written examination (60%) and two assignments (account for 20% each).

Students work on the assignments individually and hand them in before specified deadlines. Solutions to the assignments are subsequently discussed in class/lab.

Form of assessment	Weight	Group size
Written examination 3 hours	60%	Individual
Assignment	20%	Optional (individual or group of max 3 students)
Assignment	20%	Optional (individual or group of max 3 students)

Specific information regarding student assessment will be provided in class. This information may be relevant to requirements for term papers or other hand-ins, and/or where class participation can be one of several components of the overall assessment. This is a course with continuous assessment (several exam components) and one final exam code. Each exam component is graded using points on a scale from 0-100. The final grade

for the course is based on the aggregated mark of the course components. Each component is weighted as detailed in the course description. Students who fail to participate in one/some/all exam components will get a lower grade or may fail the course. You will find detailed information about the points system and the mapping scale in the student portal @bi.

Examination code(s)
GRA 64371 continuous assessment accounts for 100% of the final grade in the course GRA 6437.

Examination support materials
Bilingual dictionary
Permitted examination support materials for written examinations are detailed under examination information in the student portal @bi. The section on support materials and the use of calculators and dictionaries should be paid special attention to.

Re-sit examination
It is only possible to retake an examination when the course is next taught. The assessment in some courses is based on more than one exam code. Where this is the case, you may retake only the assessed components of one of these exam codes. All retaken examinations will incur an additional fee. Please note that you need to retake the latest version of the course with updated course literature and assessment. Please make sure that you have familiarised yourself with the latest course description.

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

Any violation of the honor 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 honor code, please ask.

We hand out, discuss in class, and distribute electronically a variety of materials related to the assigned cases. We do this to provide additional feedback and insight about each case and what should be learned from working on the case, and we make no effort to restrict access to these materials. However, obtaining and using such previous materials in any assignments is a direct and serious violation of the honor code.

At no time should notes or papers or personal consultations based on previous semesters of this course be used. Similarly, you or the other members of your team should not consult with anyone else (or material prepared by anyone else including information from the Internet, computer network, or other on-line news service) in preparing a case for class discussion or written submission or in preparing marketing game-related assignments.