Multivariate Data Analysis

Academic Year: (2017 / 2018) **Review date: 27-04-2017**

Department assigned to the subject: Statistics Department

Coordinating teacher: KAISER REMIRO, REGINA

Type: Electives ECTS Credits : 3.0

Year : 1 Semester : 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Not required.

OBJECTIVES

Skills to be acquired

General skills
*CG2: Effective knowledge of other disciplines / techniques used in Marketing and Market Research.

Specific skills:
*CE5: To understand and use statistics and econometrics tools to analyze data and marketing problems through scientific models, using appropriate software.

Learning objectives:
¿ Understand basic foundations of multivariate data analysis.
¿ Apply fundamental principles and methods of multivariate data analysis to a wide range of problems.
¿ Design, correctly implement and document solutions to the ¿real-world¿ problems.

DESCRIPTION OF CONTENTS: PROGRAMME

Introduction to multivariate data analysis.
Principal component analysis.
Factor analysis.
Correspondence analysis
Discriminant analysis and classification
Cluster analysis
Multidimensional scaling.
Structural (Simultaneous equation) models with latent variables
PLS
Data mining

LEARNING ACTIVITIES AND METHODOLOGY

Classes may involve lectures, small group exercises, case analyses and discussions. The lectures will serve to establish the conceptual foundations. Practical classes are designed so that students can develop skills and abilities required properly established.

Student contributions are an important part of the course. Students are expected to read assigned materials for each class; attend class, participate and contribute to discussions.

ASSESSMENT SYSTEM

Your final grade will be assigned based on:

Participation in-class discussion, quizzes and cases studies: 60%
Final exam: 40%

In order to pass the subject, students need to meet the minimum passing score of 4 points (out of a possible 10) in the final exam. Students that do not meet the minimum passing grade should retake the subject. If the resit is taken, the above grade criteria also apply.

% end-of-term-examination:	40
% of continuous assessment (assigments, laboratory, practicals…):	60

BASIC BIBLIOGRAPHY

- Dillon, W., Goldstein, M. Multivariate Analysis. , New York, Wiley, 1984