# uc3m Universidad Carlos III de Madrid

## Data Analysis in Marketing

Academic Year: (2021 / 2022) Review date: 30-05-2021

Department assigned to the subject:

Coordinating teacher: KAISER REMIRO, REGINA

Type: Compulsory ECTS Credits: 3.0

Year: 1 Semester: 1

## REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Not required.

#### **OBJECTIVES**

## **COMPETENCES**

CB6...

CG1...

CG2 Effective knowledge of other disciplines / techniques used in Marketing and Market Research.

CG6 Ability to search and analyze information from different sources.

CG7 ...

CE1 ...

CE4 To learn the qualitative and quantitative tools for market research, to choose and apply the most appropriate technique to every problem, and understand the potential of computer tools in this area.

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

CE6 ...

# LEARNING OUTCOMES

The student identifies essential methodologies for data analysis in the final stages of market research

The student evaluates the results of the various types of market research used in marketing.

The student analyzes the results of the studies from a marketing management perspective, and designs a marketing strategy in the company based on these results.

# **DESCRIPTION OF CONTENTS: PROGRAMME**

Chapter 1. Descriptive statistics for marketing analysis.

- 1.1 Introduction.
- 1.2 Types of marketing data.
- 1.3 Scalar measures.
- 1.4 Graphical displays. Sampling. SPSS examples.

# Chapter 2. Inferential statistics.

- 2.1 Basic foundation of inferential statistics.
- 2.2 Point and interval estimation of population parameters.
- 2.3 Testing of hypotheses about population parameters.
- 2.4 Hypotheses about the differences among two populations. SPSS examples.

## Chapter 3. Associative statistics.

- 3.1 Concept of association among two variables.
- 3.2 Types of relationships.
- 3.3 Cross tabulations and chi-square analysis.
- 3.4 Correlation. SPSS examples.

## Chapter 4. Predictive statistics.

4.1 Basic concept of prediction and regression analysis.

- 4.2 Bivariate and multiple linear regressions.
- 4.3 Other models. SPSS examples

#### LEARNING ACTIVITIES AND METHODOLOGY

TRAINING ACTIVITIES OF THE SUBJECT AF3 Theoretical practical classes AF6 Group work AF7 Individual student work

Activity code / No. of total hours / No. of face-to-face hours /% face-to-face AF3 105 105 100 AF6 145 0 0 AF7 125 0 0 TOTAL SUBJECT 375 105

#### TEACHING METHODOLOGIES

MD1 Lectures in the teacher's class supported by computer and audiovisual media, in which the main concepts of the subject are developed and the bibliography is provided to complement the students' learning.

MD2 Critical reading of texts recommended by the professor of the subject: Sentences and resolutions, press articles, reports, manuals and / or academic articles, either for later discussion in class, or to expand and consolidate the knowledge of the subject.

MD3 Resolution of practical cases, problems, etc.¿ raised by the teacher individually or in groups

MD4 Presentation and discussion in class, under the moderation of the teacher, of topics related to the content of the subject, as well as practical cases

MD5 Preparation of works and reports individually or in groups

#### ASSESSMENT SYSTEM

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

Your final grade will be assigned based on:

Participation in-class, discussion, assignments, 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.

#### **BASIC BIBLIOGRAPHY**

- Devore, J.L., and N.R. Farnum Applied Statistics for Enginners and Scientist, 2nd Edition, Duxbury Press, , 2004
- Lind, D. Marchal, W.G. and Wathen, S. Statistical Techniques in Business and Economics. 15th Edition., Irwin/McGraw-Hill, 2011
- Siegel, A.F. Practical Business Statistics., Academic Press., 2011