Universidad Zaragoza

Academic Year/course: 2023/24

27647 - Quantitative Models for Marketing

Syllabus Information

Academic year: 2023/24
Subject: 27647 - Quantitative Models for Marketing
Faculty / School: 109 - Facultad de Economía y Empresa
Degree: 450 - Degree in Marketing and Market Research
ECTS: 5.0
Year: 4
Semester: First semester
Subject type: Optional
Module:

1. General information

The subject is quantitative and has a strong applied component. During the subject, the student should acquire fluency to produce and handle large volumes of data, to interpret the nature of the research problem that corresponds to each case and to apply with solvency the most appropriate analytical tools. The tools play a fundamental role in this process.

The main goal of this subject is to learn binary choice and panel data models.

These approaches and goals are aligned with the Sustainable Development Goals (SDGs) of the 2030 Agenda of United Nations (https://www.un.org/sustainabledevelopment/es/), specifically, the activities planned in the subject will contribute to the achievement of the goals.

2. Learning results

Its main goal is that the student is able to carry out a qualitative data modeling work of absolutely autonomously. To do so, the student must master the techniques that make up the four essential stages of the econometric method (specification, estimation, validation and exploitation of results), in this case applied to market analysis. We expect the student to be able to understand the specific type of data with which, in each case, works and to select the most appropriate econometric model accordingly.

The specific goals we seek with this course belong to three categories: conceptual, skills and attitudes. Regarding the first two categories (conceptual and skills), the student should understand the basic techniques of econometric analysis applied to qualitative data, typical of market analysis and panel data.

The subject has a strong practical orientation which means that the student should be able to design and evaluate research exercises autonomously.

3. Syllabus

UNIT 1. Introduction

Term goal and basic concepts.

Types of data and typology of models.

Instruments

An overview of the course

UNIT 2. Binary choice models

Linear regression model.

Probit and logit models.

Estimation and inference in binary choice models.

Case studies

UNIT 3. Multiple choice models

Estimation and inference in multiple choice models.

Case studies

UNIT 4. Models for sorted data

Estimation and inference in models for ordinal data.

Case studies:

UNIT 5. Introduction to Panel Models.

Panel data models.

A case study

4. Academic activities

The subject will be taught in a practical way in the computer classroom with the Gretl program. The first half hour will be master class on blackboard and then the knowledge will be applied to cases proposed by the teacher.

The distribution of the 125 hours dedicated to the subject will be as follows:

Master Classes: 15 hours

Practical Classes: 25 hours

Case Resolution: 10 hours

Assessment Tests: 5 hours

Personal work: 70 hours

5. Assessment system

In the FIRST CALL, two evaluation systems will be implemented:

Continuous evaluation consisting of three individual or paired assignments, to be chosen by the students. The first will correspond to the knowledge acquired from topics 1 and 2 of the subject. The second will correspond to the knowledge acquired from topics 3 and 4; and the third will correspond to the knowledge acquired in topic 5.

The grade obtained for continuous evaluation will be the arithmetic mean of the three approved papers. Each unsuccessful assignment will be returned to the student(s) for review at.

Global assessment:

A test of the whole program of the subject, consisting of the resolution of three cases that the student must solve with the computer.

In order to pass the course, a score equal to or higher than 5 points out of 10 must be obtained.

In the SECOND CALL, the evaluation method will be the Global following the guidelines defined for the first call.

For the evaluation of the students of the fifth and sixth call, reference is made to the agreement of December 22, 2010, of the Governing Council of the University.