27610 - Statistics II

Información del Plan Docente

Academic Year	2018/19
Subject	27610 - Statistics II
Faculty / School	109 - Facultad de Economía y Empresa
Degree	450 - Degree in Marketing and Market Research
ECTS	6.0
Year	2
Semester	First semester
Subject Type	Compulsory
Module	---

1.General information

1.1.Aims of the course

1.2.Context and importance of this course in the degree

1.3.Recommendations to take this course

2.Learning goals

2.1.Competences

2.2.Learning goals

2.3.Importance of learning goals

3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

4.2.Learning tasks

4.3.Syllabus

The course will address the following topics:

- Topic 1. Discrete probability distributions. Random variables. Discrete and continuous random variable. Probability distribution or mass function. Binomial, Hypergeometric and Poisson distributions.
- Topic 2. Continuous probability distributions. Continuous random variable. Probability density function. Uniform and Exponential distributions. Normal distribution and related to normal distributions.

- Topic 3. Basic notions of sampling theory. Sampling from a population. Sampling methods. Sampling distribution of statistics: Monte Carlo method. Asymptotic behavior of sampling moments. Sample-size determination.
- Topic 4. Point estimators and Interval estimation Estimation. Building estimators: method of moments and maximum likelihood estimates. Properties of estimators. Confidence interval. Methods of finding interval estimators. Confidence intervals for parameters of normal distribution. Some applications.
- Topic 5. Parametric hypotheses. Basic concepts: Simple, compound, null and alternative hypotheses, significance level, power of a test. Tests of the mean and variance of a normal distribution, tests of the population proportion.
- Topic 6. Two-sample hypothesis tests. Independent and dependent samples. Comparing proportions, means and variances: confidence intervals and tests of statistical hypotheses.

4.4.Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course, will be provided on the first day of class or please refer to the Faculty of Economics and Business website (https://econz.unizar.es/)

4.5.Bibliography and recommended resources