

31215 - Data Analysis II

Syllabus Information

Academic year: 2024/25

Subject: 31215 - Data Analysis II

Faculty / School: 301 - Facultad de Ciencias Sociales y Humanas

Degree: 613 - Degree in Psychology

ECTS: 6.0

Year: 2

Semester: Second semester

Subject type: Basic Education

Module:

1. General information

The purpose of this subject is for students to acquire the essential knowledge of inferential statistics and to be able to perform data analysis with statistical software.

2. Learning results

- To know the two existing procedures by which statistical inferences can be made: parameter estimation and hypothesis testing.
- To understand the statistical analysis of a scientific article.
- Given a specific research problem, to identify the most appropriate type of statistical analysis to solve it.
- To manage databases and statistical software.
- To adequately interpret the results obtained by means of statistical software.

3. Syllabus

- Unit 1. Introduction to inferential statistics
- Unit 2. Hypothesis testing and parameter estimation
- Unit 3. Multiple linear regression
- Unit 4. Comparison of two averages
- Unit 5. Single and multifactorial analysis of variance (ANOVA)

4. Academic activities

This subject comprises several academic activities focused mainly on presenting and deepening the theoretical concepts of statistical inference, consolidating the contents of the subject, as well as learning to use statistical software for data analysis. In particular:

- Explanatory classes
- Practical activities with statistical software
- Guided academic activities
- Tutorials
- Assessment

5. Assessment system

The continuous assessment of the subject consists of two parts:

- Final test(60% of the final grade): The theoretical and applied contents developed in the subject will be evaluated.

Multiple choice and/or short answer questions may be included.

- Weekly deliveries and evaluable activities(40% of the final grade): The practical contents of the subject will be evaluated (e.g., critical review of research articles, applied questions related to research projects , use of statistical software and result acquisition and interpreting, etc.).

Given the theoretical-practical nature of this subject, the evaluation criteria are shared in the different parts of the evaluation system. These criteria contemplate the adequacy in the use and handling of statistical software, the ability to interpret the results (value of the statistic, tables, graphs, etc.), as well as to identify and critically review information related to the use and application of statistics in psychology.

Students must achieve at least half of the maximum possible grade in each of the parts in order to add them together. Likewise, students are entitled to a global evaluation on all the contents of the subject. In this global evaluation, students are eligible for the maximum grade (100% of the final grade). This evaluation will take place in the official final call for exams and consists of a written test with multiple choice and/or short answer questions that refer to the theoretical and practical-applied contents of the subject.

6. Sustainable Development Goals

- 4 - Quality Education
- 8 - Decent Work and Economic Growth
- 9 - Industry, Innovation and Infrastructure