

28511 - Statistics

Syllabus Information

Academic year: 2023/24

Subject: 28511 - Statistics

Faculty / School: 108 - Facultad de Ciencias Sociales y del Trabajo

Degree: 428 - Degree in Labour Relations and Human Resources

ECTS: 6.0

Year: 2

Semester: First semester

Subject type: Basic Education

Module:

1. General information

This subject offers an introduction to statistical analysis of bivariate data and statistical inference, fundamental tools to train critical professionals. The students, after having taken the first course of Methods and Social Research Techniques, know the basic techniques of univariate descriptive statistics. It is, therefore, a continuation in the learning of statistical techniques. Likewise, it is considered essential to develop skills for the use of statistical software, essential nowadays to perform statistical analysis of data.

{These approaches and goals are aligned with the Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda, as the use of real data helps to illustrate the situation of certain SDGs, in particular SDG 5 (Gender Equality), SDG 8 (Decent Work and Economic Growth) and SDG 10 (Reducing Inequalities).

2. Learning results

- Be able to locate and discriminate the statistical sources that collect socio-labor data.
- Be able to use statistical methods for data analysis.
- Be able to analyze data with the support of the main statistical software packages.
- Be able to draw conclusions from the results obtained from a statistical analysis.
- Know the necessary steps to carry out socio-labor research work.
- Be able to apply quantitative and qualitative social research techniques to the work environment.
- Be able to locate, discriminate and analyze relevant documentation and information for research in the socio-labor field.
- Know the different sampling methods and know how to apply them.

3. Syllabus

Block I. Introduction.

Unit 1: Statistics in the workplace.

Unit 2: One-dimensional descriptive statistics.

Block II. Two-dimensional descriptive statistics.

Unit 3: Relationship between pairs of qualitative variables.

Unit 4: Relationship between pairs of quantitative variables

Unit 5: Comparison between populations.

Block III. Description of temporal variables.

Unit 6: Time series.

Unit 7: Index numbers.

Block IV. Probability.

Unit 8: Notions of Probability.

Block V. Statistical Inference.

Unit 9: Introduction to Statistical Inference.

Unit 10: Confidence intervals.

Unit 11: Hypothesis testing.

Unit 12: Sampling techniques.

4. Academic activities

- **Master classes:** 30 hours.
- **Practical classes:** 30 hours.
- **Personal study:** 84 hours.
- **Assessment activities:** 6 hours

5. Assessment system

The assessment consists of a final exam (compulsory, to be taken on the date of the official call) and several evaluative activities (voluntary, during the class period).

- Compulsory final exam: it will be graded from 0 to 10 points.
- Assessment activities: they will be graded, as a whole, from 0 to 10 points.

The final grade for the subject will be the higher of:

- 90% grade of the final exam + 20% grade of the assessment activities.
- 100% final exam grade.

In any case, the final grade for the subject will not exceed 10 points.