

Academic Year/course: 2022/23

26121 - Statistics applied to social research

Syllabus Information

Academic Year: 2022/23

Subject: 26121 - Statistics applied to social research

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

Degree: 274 - Degree in Social Work

ECTS: 6.0

Year: 3

Semester: First semester

Subject Type: Compulsory

Module:

1. General information

2. Learning goals

3. Assessment (1st and 2nd call)

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The learning process that has been designed for this subject is based on the following:

The methodology proposed tries to encourage the student's continuous work and focuses on the most practical aspects of Statistics: working with real data. In the sessions with the whole group, the more theoretical aspects are dealt with in the form of a master class and are completed with immediate applications: type-problems. In this same full group the students will carry out the reasoned and public exposition of the previously recommended exercises (with the subsequent evaluation by the classmates and the professor). The smaller groups will be used to begin the realization of the exercises and resolution of doubts by the teacher; they will also work on materials such as press articles, scientific articles related to social research and reports, methodology and data provided by official and semi-official institutions.

4.2. Learning tasks

The program that is offered to the student to help him/her achieve the expected results includes the following activities...

Type 1 (in a traditional classroom and with the whole group)

Part I: Statistical Methods for one variable:

T1: Presentation of the subject. Definitions. Classification of variables. Tables

T2: Quantitative variables. Graphical representations.

T3: Numerical description I

T4: Numerical description II. Form of variables. Atypical data

T5: Analysis of variables. Transformation of variables. Report writing.

Part II: Statistical methods for two variables. Relationships between variables:

T6: Joint distribution.

T7: Correlation

T8: Regression Line

T9: Comparison of populations. Completion of the report

Part III: Introduction to the Inferential Methods

T10: Notions of Sampling, Confidence Intervals, Hypothesis Testing, Contingency Tables.

The teacher presents the general outlines of the theory and solves the model problems. The students present the solutions to the previously assigned problems.

Type 2 (in classroom with computer and projector; small group of about 30 students)

Part I: Public presentation by the students of the doubts raised by the resolution of the exercises and problems.

Part II: Working on materials from articles and on-line materials from organizations in official and semi-official institutions. Issuance of reports.

4.3. Syllabus

Part I: Statistical Methods for one variable:

T1: Presentation of the subject. Definitions. Classification of variables. Tables

T2: Quantitative variables. Graphical representations.

T3: Numerical description I

T4: Numerical description II. Form of variables. Atypical data

T5: Analysis of variables. Transformation of variables. Report writing.

Part II: Statistical methods for two variables. Relationships between variables:

T6: Joint distribution.

T7: Correlation

T8: Regression Line

T9: Comparison of populations. Completion of the report

Part III: Introduction to the Inferential Methods

T10: Notions of Sampling, Confidence Intervals, Hypothesis Testing, Contingency Tables.

4.4. Course planning and calendar

Schedule of classroom sessions and presentation of papers

The course is divided into two parts of approximately equal chronological duration. Each of them would consist of 6 initial weeks plus a closing one to give a joint vision of what has been worked on in the previous weeks and to carry out the test. There is the possibility of presenting reports corresponding to topics of interest other than the topics worked on in the large group.

Key dates cannot be provided exactly. On the other hand, and as can be seen in the previous point, the composition of the small working groups has to be formalized for academic purposes (a matter that depends a lot on the registration phase at the Secretary's Office of the Faculty of Social and Labor Sciences) and from that moment on the part of continuous evaluation that has to do with the public exposition of the exercises/problems can begin. As far as the written knowledge tests are concerned (since according to the instructions of the quality assurance commission there cannot be written exams), since each of them corresponds to the univariate and bivariate parts (approximately equal in time duration), they will be carried out as soon as their delivery (of each of them) is finished. We estimate that each of the parts will consume (it is an approximate calculation) 7.5 weeks of the 15 in which apparently the course is counted (because according to the Teaching Organization Plan it could be counted in 15 or 20 weeks) [logically this partition of the subject will be subject to the assignment of the POD in the Department Council. As far as possible, the same professor will be in charge of both the theoretical and practical part of whole subjects]. It would therefore be enough to count 7.5 weeks from the beginning of the course [that for the first written test]. For the second written test then (always said approximately) at the end of week 15 from the official beginning of the course to which it corresponds [Again: these parts are mere orientation because it will depend on the responsibility of the assignment made in Council of Department]. It goes without saying that in the case of counting 20 weeks would be weeks 10 and 20.