COURSE DATA

Data Subject	
Code	36721
Name	Técnicas de investigación cuantitativas
Cycle	Grade
ECTS Credits	6.0
Academic year	2022 - 2023

Study (s)

Degree	Center	Acad. year	Period
1335 - Degree in Political and Public Administration Sciences	Faculty of Law	2	First term
1930 - D.D. in Law-Political and Public Adminis. Sciences 2021	Faculty of Law	2	First term

Subject-matter

Degree	Subject-matter	Character
1335 - Degree in Political and Public Administration Sciences	16 - Técnicas de investigación cuantitativas	Obligatory
1930 - D.D. in Law-Political and Public Adminis. Sciences 2021	3 - Asignaturas obligatorias de segundo curso	Obligatory

Coordination

Name	Department
PIZZI ., ALEJANDRO DANIEL	330 - Sociology and Social Anthropology

SUMMARY

The objective of this course is to introduce students to the basic techniques of univariate and bivariate statistical analysis. In addition, an introduction to multivariate analysis is proposed. It is assumed that students already know the basic procedures of quantitative research design (definition of a research problem, quantitative objectives, characteristics of probability sampling, characteristics of a survey and structure of questionnaires). These previous contents are updated in this course and, subsequently, special emphasis is given to quantitative analysis techniques. In this way, students learn to carry out univariate analysis, and to calculate measures of central tendency (mean, standard deviation, median, mode), ranges and estimate population parameters (confidence intervals). Likewise, bivariate analysis techniques are explained through comparison of means (T-test, ANOVA), chi-square cross-tabulations, correlation and simple regression. Finally, an introduction to multivariate analysis is presented. In this way, students will

be able to establish statistical regularities in the populations under study. These regularities are the basis of quantitative sociopolitical analysis.The conceptual contents of this course provide the basic knowledge to carry out empirical research works related to political science, as well as it lays one of the foundations to prepare, in the future, end-of-degree works.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

The course "University, Research and Politics" (36708) is the background course required to take "Quantitative Research Techniques".
There are no specific requirements for this course. However, it is recommended to have a comprehensive reading ability and a correct oral and written expression in Spanish and Valencian.

OUTCOMES

1335 - Degree in Political and Public Administration Sciences

- Students must have acquired knowledge and understanding in a specific field of study, on the basis of general secondary education and at a level that includes mainly knowledge drawn from advanced textbooks, but also some cutting-edge knowledge in their field of study.
- Students must be able to apply their knowledge to their work or vocation in a professional manner and have acquired the competences required for the preparation and defence of arguments and for problem solving in their field of study.
- Students must have the ability to gather and interpret relevant data (usually in their field of study) to make judgements that take relevant social, scientific or ethical issues into consideration.
- Students must be able to communicate information, ideas, problems and solutions to both expert and lay audiences.
- Students must have developed the learning skills needed to undertake further study with a high degree of autonomy.
- Análisis de información para evaluar problemas políticos o de gestión pública y elaborar propuestas de mejora
- Pensamiento crítico.
- Trabajo en equipo.
- Saber utilizar los métodos y técnicas de análisis cuantitativos y cualitativos, así como el método comparativo.

- Saber elaborar informes, dictámenes y trabajos de investigación política.

LEARNING OUTCOMES

To become familiar with the use of the fundamentals of statistics applied to socio-political analysis.To know and know how to use the basic components of the survey, as well as the exploitation and analysis of data through different techniques of quantitative analysis. To know and know how to use the basics of the main applications of quantitative data analysis through computer programs. To know the basics of working with experiments in Political Science.

DESCRIPTION OF CONTENTS

1. CONTENTS

1. The survey. Structure and types of surveys.
2. Searching and downloading statistical databases (microdata).
3. Statistical data analysis:

3.1. Descriptive statistics: measures of central tendency, standard deviation and ranges. Normal curve and standardized values.

3.2. Inferential statistics. Univariate analysis: standard error and calculation of confidence intervals.

3.3. Inferential statistics. Bivariate analysis: comparison of means through Student's t-test. Cross-table analysis using the Chi-Square coefficient and other association coefficients. Analysis of Variance (ANOVA). Interpretation of correlation and simple regression techniques.

3.4. Introduction to inferential statistics. Multivariate analysis: introduction to multiple regression.

By learning these techniques, students will be able to carry out statistical analysis of different topics applied to the field of political science.

Students will become familiar with the use of some statistical programs commonly used in social and political sciences (SPSS / PSPP / R / etc.). Therefore, the subject is taught in computer classrooms. At the same time, students are also required to use their personal computers to carry out different types of practical exercises.

WORKLOAD

ACTIVITY	Hours	% To be attended
Theoretical and practical classes	60,00	100
Attendance at events and external activities	5,00	0
Development of group work	20,00	0
Development of individual work	20,00	0
Study and independent work	30,00	0
Readings supplementary material	5,00	0
Preparing lectures	5,00	0
Preparation of practical classes and problem	5,00	0
TOTAL	**150,00**	

TEACHING METHODOLOGY

The course is based on the use of computer programs to carry out quantitative analysis. Therefore, classes will be held in computer classrooms. Students are also required to use their own personal computer, outside class hours, to carry out the various practical tasks included in the course.The teaching methodology includes the following activities: lectures, case studies, solving exercises and problems, autonomous and cooperative learning. Attendance to tutorials. Presentation by the teaching staff and student participation based on the issues raised; practical classes and presentation of individual and group work. The teaching staff will explain the different topics and points that make up the program. Lectures will be continuously interspersed with practical activities and the active participation of students in class.Each topic will be supported by basic bibliography and statistical databases that will be subject to quantitative analysis. In addition, a complementary bibliography will be provided, including texts that address the topics under study in greater depth or focus on specific aspects. In this way, the aim is to reinforce the knowledge acquired in class and to provide a guide for the expansion of the topics that are of interest to the students.Besides the course schedule, students will be required to attend and participate in complementary activities, conferences, etc., organized throughout the course.

EVALUATION

The evaluation of the course consists of two parts:First, the evaluation of the students' continuous work through a set of practical assignments (individual or group) carried out throughout the course. The practical work must be submitted in due time and form. It is not accepted the delivery of practical activities out of the deadline foreseen by the teacher. Practical activities represent 40% of the final grade. Secondly, students will take an individual final exam. This exam consists of a series of exercises on the topics covered in the course. The exam grade represents 60% of the final evaluation. Passing the exam is mandatory to pass the course.

REFERENCES

Basic

- Ritchey, Ferris (2008). Estadística para las ciencias sociales. Madrid, McGraw Hill.
García Ferrando, Manuel; Alviar, Francisco; Alonso, Luis E.; Escobar, Modesto (comps.) (cuarta edición 2015). El análisis de la realidad social. Madrid, Alianza Editorial.
López-Roldán, Pedro i Fachelli, Sandra (2015). Metodología de la Investigación Social Cuantitativa. Bellaterra: Universitat Autònoma de Barcelona.

Additional

- Díaz de Rada, V. (2009), Análisis de datos de encuesta. Desarrollo de una investigación completa utilizando SPSS, Madrid: Editorial UOC.
Visauta Vinacua, B. (2007): Análisis estadístico con SPSS 14. Estadística básica, Madrid: McGraw-Hill.