

**COURSE DATA****Data Subject**

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|----------------------|------------------|
| <b>Code</b>          | 34412            |
| <b>Name</b>          | Socio-statistics |
| <b>Cycle</b>         | Grade            |
| <b>ECTS Credits</b>  | 9.0              |
| <b>Academic year</b> | 2019 - 2020      |

**Study (s)**

| <b>Degree</b>                                                 | <b>Center</b>              | <b>Acad. year</b> | <b>Period</b> |
|---------------------------------------------------------------|----------------------------|-------------------|---------------|
| 1310 - Degree in Sociology                                    | Faculty of Social Sciences | 1                 | Annual        |
| 1924 - D.D. in Political and Public Admin. Sciences-Sociology | Faculty of Law             | 1                 | Annual        |
| 1925 - D.D. in Sociology-Political and Public Admin. Sciences | Faculty of Social Sciences | 1                 | Annual        |

**Subject-matter**

| <b>Degree</b>                                                 | <b>Subject-matter</b>          | <b>Character</b> |
|---------------------------------------------------------------|--------------------------------|------------------|
| 1310 - Degree in Sociology                                    | 5 - Statistics                 | Obligatory       |
| 1924 - D.D. in Political and Public Admin. Sciences-Sociology | 1 - Year 1 compulsory subjects | Obligatory       |
| 1925 - D.D. in Sociology-Political and Public Admin. Sciences | 1 - Year 1 compulsory subjects | Obligatory       |

**Coordination**

| <b>Name</b>               | <b>Department</b>                       |
|---------------------------|-----------------------------------------|
| CASTELLO COGOLLOS, RAFAEL | 330 - Sociology and Social Anthropology |

**SUMMARY**

This subject is part of the Sociology degree and is included in the module of Methods and Techniques of Social Research. It is worth 9 ECTS credits (equivalent to a 225-hour workload) and it is a compulsory first-year subject.



*Social Statistics* is closely linked to most subjects of the same module, especially with *IT Applied to Sociological Research* (annual and mandatory first-year subject) and *Quantitative Techniques in Social Research* (annual and mandatory second-year subject). Social statistics is the base for both of them since it introduces students to IT applications and different types of data analysis.

## PREVIOUS KNOWLEDGE

### Relationship to other subjects of the same degree

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

### Other requirements

Relationship with other subjects of the same degree

No enrolment restrictions have been specified.

Other types of prerequisites

It is advisable that students take Social Statistics simultaneously with IT Applied to Social Sciences.  
No specified prerequisites.

## OUTCOMES

### 1310 - Degree in Sociology

- 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.
- Work in a team with a multidisciplinary perspective.



- Respect and promote the principles of fundamental rights, gender equality, equal opportunities and non-discrimination, democratic values and sustainability.
- Manage documentary sources and statistics referring to social reality.
- Learn independently and develop initiative in the field of sociology.
- Analyse empirical data on social structure, change and problems.
- Know and apply statistical techniques for the analysis of social reality.
- Know and use secondary data sources useful for sociology.
- Use software and computer applications useful for sociology.
- Identify and measure social vulnerability factors.

## LEARNING OUTCOMES

- Appreciate and evaluate possibilities of probabilistic knowledge and decision making under uncertainty.
- Distinguish and relate the basics of descriptive statistics and inferential statistics.
- Identify and apply the basic elements and measures of descriptive statistics.
- Identify and apply the basic elements and measures of inferential statistics.
- Calculate and describe parameters and statistics of populations and samples.
- Contrasting hypotheses about the parameters and make estimates of ranges of parameters.
- Contents social inferences made from statistical information.

## DESCRIPTION OF CONTENTS

### 1. Organization and y basis of Social Statistics.

1.1 Methods and stages of a quantitative empirical research. Place it within the framework of scientific research. Establish the characteristics and specificities of social research and the need of Statistics.

1.2. The basic concepts of Social Statistics. Measuring and the creation of variables as the first step of social statistics. Types of variables.

### 2. Unidimensional descriptive social statistics.

2.1. Unidimensional description. Isolated study of individual variables without considering the relationships with the remaining variables considered in data matrix.

Distribution of frequencies and graphical representations. Measures of position. Measures of dispersion. The Lorenz Curve and the Gini Coefficient. Joint consideration the measures of position and dispersion.

**3. Bidimensional descriptive social statistics.**

3.1. Bidimensional descriptive. We take one step forward and include the unidimensional study plus the relationship between pairs of variables. Distribution of frequencies and graphical representation. Association and co-variation. Chi-squared distribution. Correlation and regression. Lineal model.

**4. Probability and introduction to Inference.**

4.1. Inference: basic concepts and the need for probability. Induction as a necessary but inexact procedure. Populations and samples.

4.2. Probability distributions. Values of variables and their probabilities. Revision of the main probability distributions and their main characteristics from a sociological analysis perspective.

**5. Sampling**

5.1. Central Limit Theorem. Set of results (or theorems) that reveal the reasons why normal or nearly normal distributions are sometimes found in many fields of application.

5.2. Sampling: statistic procedures where the empirical information available does not represent the total. Sampling. Estimation and contrasts. Errors as unavoidable aspects of our work.

**WORKLOAD**

| ACTIVITY                                     | Hours         | % To be attended |
|----------------------------------------------|---------------|------------------|
| Theoretical and practical classes            | 90,00         | 100              |
| Attendance at events and external activities | 5,00          | 0                |
| Development of group work                    | 30,00         | 0                |
| Development of individual work               | 30,00         | 0                |
| Study and independent work                   | 30,00         | 0                |
| Preparing lectures                           | 20,00         | 0                |
| Preparation of practical classes and problem | 20,00         | 0                |
| <b>TOTAL</b>                                 | <b>225,00</b> |                  |

**TEACHING METHODOLOGY**

- Lecture participatory
- Troubleshooting
- Cooperative work
- Search documentary and statistical data
- Individual and group tutorials



## EVALUATION

-Written exam: 50% of the final cualification.

-Evaluation of practical activities: 50% of the final qualification.

Attendance and participation of the students in both classes classroom and mentoring or complementary activities organized will be assessed. It is necessary to pass both parts in order to pass the subject.

## REFERENCES

### Basic

- DIAZ DE RADA, V. (2009), Análisis de datos de encuesta. Desarrollo de una investigación completa utilizando SPSS, Madrid: Editorial UOC.
- GARCIA FERRANDO, M. (2006), Socioestadística. Introducción a la Estadística en Sociología, Madrid: Alianza Editorial.
- SPIEGEL, M. R. (1990), Estadística, Madrid: McGraw-Hill.
- VISAUTA VINACUA, B. (2007): Análisis estadístico con SPSS 14. Estadística básica, Madrid: McGraw-Hill.

## ADDENDUM COVID-19

**This addendum will only be activated if the health situation requires so and with the prior agreement of the Governing Council**

### 1. Contenidos

La docencia presencial había acabado. Se mantienen los contenidos inicialmente recogidos.

### 2. Volumen de trabajo y planificación temporal de la docencia

La docencia presencial había acabado. Mantenimiento del peso de las diferentes actividades que suman las horas de dedicación en créditos ECTS marcadas en la guía docente original.

### 3. Metodología docente

La docencia presencial había acabado. De todas maneras, hemos hecho:





1. Subida de materiales al Aula Virtual.
2. Propuesta de actividades por el aula virtual.
3. Videoconferencia síncrona con BBC.
4. Problemas/ejercicios resueltos.
5. Tutorías por videoconferencia.

#### **4. Evaluación**

Se había hecho ya una evaluación parcial con prueba escrita. Se está haciendo actividades de evaluación continua con la presentación de trabajos y problemas resueltos, que continúan activos. Y se mantienen las pruebas escritas previstas en el calendario, pero en modalidad no presencial, al día y hora previstos. Por todo esto, se mantienen los pesos de los componentes de la evaluación previstos a la Guía Docente.

Adición de actividades de evaluación continua. No se han añadido nuevas actividades, dado que ya estaban prácticamente acabadas.

Prueba escrita abierta (examen tradicional) pero distribuida en aula virtual. Habrá una sesión de BB Collaborate, de unos 10-15 minutos para explicar la dinámica de la prueba y para aclarar posibles dudas. Se dará un tiempo limitado para la entrega de la respuesta en el aula virtual.

#### **5. Bibliografía**

La bibliografía recomendada se mantiene, pues es accesible. Hay que tener en cuenta que las transparencias y los problemas resueltos están disponibles en el Aula Virtual.