Degree	Type	Year	Semester
2500257 Criminology	OB	2	1

Contact

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Use of languages

Principal working language: catalan (cat)

Some groups entirely in English: No

Some groups entirely in Catalan: No

Some groups entirely in Spanish: No

Other comments on languages

The language of the course will be Catalan, with the possibility of adapting it, were any international students inscribed in the course. The materials of the practice sessions will be in Catalan, Spanish and English.

Teachers

Irene Cruz Gomez

Prerequisites

• No previous training in statistics is required. However, knowledge in mathematics will help students to effectively learn the course contents.
• Students are adviced to take the propaedeutic course in mathematics and statistics that the university offers.

Objectives and Contextualisation

Quantitative Research Methods is a course designed to introduce students to statistical data analysis as a tool for criminological research.

As one of its general objectives, the Degree in Criminology trains students in using criminological methods and techniques of analysis when studying data and situations of conflict, crime, and control in specific social contexts. To that end, the course objectives are:

- Learning basic statistical terms needed to perform descriptive and inferential data analysis with one or two variables;
- Applying those skills when conducting criminological research; and
- Using statistical software for quantitative data analysis.

Quantitative Research Methods is a continuation of the first-year courses **Scientific Research in Criminology** and **Criminological Data Sources**. The progress in the kwnoledge of quantitative methods is done in the second semester through the course **Data Analysis**, focused on multivariate analysis.

Skills

- Ability to analyse and summarise.
- Accessing and interpreting sources of crime data.
- Applying the quantitative and qualitative data collection techniques in the criminological field.
- Designing a criminological research and identifying the appropriate methodological strategy to the proposed goals.
- Formulating research hypothesis in the criminological field.
- Using research methods in social sciences in order to diagnose criminality problems.
- Working autonomously.

Learning outcomes

1. Ability to analyse and summarise.
2. Applying the quantitative and qualitative data collection techniques in the criminological field.
3. Choosing the appropriate research methodology in criminological works.
4. Designing criminological research projects with well-drawn hypothesis.
5. Diagnosing a criminal process through the scientific method.
6. Interpreting in a scientific way statistical data from the criminological field.
7. Working autonomously.

Content

Tema 0. Course outline

0.1. Objectives and content

0.2. Activities and evaluation requirements

PART I. DESCRIPTIVE DATA ANALYSIS

Unit 1. Univariate descriptive statistics

1.1. Introduction to statistical data analysis in Criminology

1.2. Software for statistical data analysis

1.3. Frequencies

1.4. Summary measures of one variable

1.5. Data transformation

Unit 2. Bivariate descriptive statistics

2.1. Crosstabulations

2.2. Comparing means and variances: tables and graphs

2.3. Simple linear regression

PART II. BASICS OF INFERENTIAL STATISTICS

Unit 3. Statistical sampling

3.1. Population and sample. Types of sampling

3.2. Simple random sampling. Sample size and sampling error

Unit 4. Hypothesis testing

4.1. Analysis of variance

4.2. Chi-square test for crosstabulations

4.3. Tests for linear regression

Methodology

DIRECTED:

- Lectures
- Workshops
- Lab sessions with statistical software

ASSESSMENT:

- Exams (theoretical and practical)

SUPERVISED:

- Statistical exercises
- Tutorials

Activities

Title	Hours	ECTS	Learning outcomes
Type: Directed			
Lectures	22.5	0.9	2, 5, 4, 6, 1
Workshops	22.5	0.9	2, 5, 4, 6, 1
Type: Supervised			
Exercises	20	0.8	2, 5, 4, 6, 1
Type: Autonomous			
Exam preparation	77	3.08	2, 5, 4, 6, 1, 7
Exams	4	0.16	2, 5, 4, 6, 1, 7

Evaluation

100% attendance is mandatory except in the case of justified absences.

Students will be evaluated with two exams. The first exam is focused on Unit 1. The second one comprises Units 2, 3 and 4. Each exam accounts for 50% of the final grade.

Students must have an average of 5/10 and a minimum of 4/10 in each exam in order to pass the course.

Exams will be theoretical and practical. While some questions will be related with statistical concepts, others will be focused on practical problems and will require using statistical software.

Only the students who have followed the course will be allowed to a second chance in case of failing the exam.

A student who cheats in the exam will get a fail mark, losing the right to a second chance. Plagiarism in exercises can also imply a fail mark.

Evaluation activities

Title	Weighting	Hours	ECTS	Learning outcomes
Exam (Unit 1)	50%	2	0.08	2, 5, 4, 3, 6, 1, 7
Exam (Units 2, 3, 4)	50%	2	0.08	2, 5, 4, 3, 6, 1, 7

Bibliography

Handbook

The following publication is the basic reference manual for the course. Although it is not mandatory, its use is recommended.

López-Roldán, Pedro; Fachelli, Sandra (2015). Metodología de la investigación social cuantitativa. Bellaterra (Cerdanyola del Vallès): Universitat Autònoma de Barcelona. Available at: https://ddd.uab.cat/record/129382

Additional complementary materials will be made available in the course Moodle.

Other references

Bardina, Xavier; Farré, Mercè; López-Roldán, Pedro (2005). Estadística: un curs introductori per a estudiants de ciències socials i humanes. Volum 2: Descriptiva i exploratòria bivariant. Bellaterra (Barcelona): Universitat Autònoma de Barcelona. Col·lecció Materials, 166.

Cea D'ancona, Mª Ángeles (1998) Metodología cuantitativa. Estrategias y técnicas de investigación social. Madrid: Síntesis.

Farré, Mercè (2005). Estadística: un curs introductori per a estudiants de ciències socials i humanes. Volum 1: Descriptiva i exploratòria univariant. Bellaterra (Barcelona): Universitat Autònoma de Barcelona. Col·lecció Materials, 162.

Fox, James A.; Levin, Jack; Forde, David R. (2009). Elementary Statistics in Criminal Justice Research. Boston: Pearson.

Maxfield, Michael G.; Babbie, Earl R. (2005). Research Methods for Criminal Justice and Criminology. Belmont, CA: Thomson Wadsworth.

Walker, Jeffery; Maddan, Sean (2009). Statistics in Criminology and Social Justice: Analysis and Interpretation. Boston: Jonesand Bartlett Pubs.