

Teaching guide

IDENTIFICATION DETAILS

Degree:	Criminology		
Scope	Law and legal specialties		
Faculty/School:	Law, Business and Government		
Course:	STATISTICS APPLIED TO CRIMINOLOGY		
Type:	Compulsory	ECTS credits:	6
Year:	3	Code:	6130
Teaching period:	Fifth semester		
Subject:	Crime Prevention		
Module:	Criminology		
Teaching type:	Classroom-based		
Language:	Spanish		
Total number of student study hours:	150		

SUBJECT DESCRIPTION

The subject of statistics initiates the student in the collection, analysis and management of data, as well as in the interpretation of the information obtained through them. It is intended to guarantee knowledge of basic statistical techniques in order to carry out and design rigorous and appropriate scientific studies as well as the autonomous management of statistical computer programs.

This course presents the approaches that frame research action in current Criminology, introducing the student to the tools necessary to carry out research studies, selecting the methodologies and techniques most appropriate to the characteristics of the problem posed and using design and sampling as useful tools to ensure rigor in the

research process.

The two different levels that, from philosophical anthropology, exist in the human being: the ontological level, which refers to our “being”, to our essence, to what makes us unique, genuine and unrepeatable beings, and the axiological level that deals with our actions, on which values are imprinted, our moral and ethical level, mean that the results of psychological research and interventions are not always the same in similar circumstances.

When we deal with the topic of research, a series of questions arise regarding the characteristics and possibilities of scientific knowledge, being objective, rigorous, universal, etc., qualities that arise from the application of the experimental scientific method. And yet, should we, therefore, give up seeking objectivity in studies and research? On the contrary, and even knowing and assuming in advance the difficulties we face in generalizing the results and the numerous criticisms regarding the validity and objectivity of the research results, we must redouble our efforts, starting from an ethical commitment to the integral development of people, to analyze human reality, to seek relationships between the observed facts, to identify the possible causes of these events, with rigor, seriousness and respect for the human person.

On the basis of the above, this course attempts to provide Criminology students with the competencies to objectively assess the results of research and to design and carry out research that will allow the objectives set in criminology to be achieved more effectively and efficiently.

GOAL

The final objective of the course is to bring the student closer to criminology research, to know the sources of knowledge and to subject them to a critical examination, so that, through observation and reasoning, we can learn about the methodology of scientific research and acquire basic strategies for the design, planning and development of a research study in Criminology. Develop reasoning so that, through research as a path of searching for truth, we probe the unknown to design informed innovation proposals, with the objective of seeking continuous improvement and the common good. The specific purposes of the course are: To learn how to use the main methodological tools of Criminology Research, in the context of the search for truth and the good of the person.

PRIOR KNOWLEDGE

No essential conditions are established, although it would be advisable to have basic knowledge of the Excel computer tool.

COURSE SYLLABUS

Theme I: EPISTEMOLOGICAL BASES OF RESEARCH

1.- Nature of scientific research: Scientific knowledge

2.- Criminology research

Theme II: THE SCIENTIFIC RESEARCH PROCESS: THE SCIENTIFIC METHOD AND ITS APPLICATION TO CRIMINOLOGY RESEARCH

1.- The research problem, its justification and hypothesis

- 2.- The variables and their operationalization
- 3.- Universe, population and sample
- Theme III: THE PROCESS OF DESCRIPTIVE DATA ANALYSIS
- 1.- Statistics: Its role in Criminology research
- 2.- Tabular presentation of data
- 3.- Graphical presentation of data
- 4.- Descriptive analysis of the data.
- 5.- Normal Distribution
- 6.- Asymmetry and Kurtosis
- TOPIC IV: STATISTICAL INFERENCE
- 1.- Correlation
- 2.- Parameter estimation: Confidence and Acceptance Intervals
- 3.- Hypothesis contrast
- 4.- Table interpretation (SPSS)

EDUCATION ACTIVITIES

All course work has a practical approach based on reflection on knowledge of reality, which aims to make the student aware of the importance of basing any innovative action that one wishes to undertake on rigorous research.

ACTIVITIES:

PARTICIPATORY MASTER LESSON: Unlike the classic master lesson, in which the burden of teaching falls on the teacher, in the participatory master class we seek to move the student from a passive attitude to an active one, encouraging their participation. For this reason, it is necessary for the teacher to structure the content well, to have clarity of presentation and to be able to maintain the student's attention and interest.

COOPERATIVE WORK IN SMALL GROUPS: The number of students scheduled at our University allows us to work in small groups as a group. Slavin defines cooperative work as 'instructional strategies in which students are divided into small groups and are evaluated according to group productivity', which brings into play both individual responsibility and positive interdependence, the basis of professional teamwork.

AUTONOMOUS WORK: In this methodology, the student takes the initiative with or without the help of others (teachers, classmates, tutors, mentors). It is the student who diagnoses their learning needs, formulates their learning goals, identifies the resources they need to learn, chooses and implements appropriate learning strategies and evaluates their learning outcomes. The teacher thus becomes the guide, the facilitator and a source of information that collaborates in this autonomous work. This methodology will be of special interest for the development of research-related competencies.

CASE METHOD: Acquisition of learning through the analysis of cases or real management situations. This active learning technique, focused on the student's research on a real and specific problem, helps the student to acquire the basis for inductive study.

RESEARCH: Search for information from various sources and documents, analysis and synthesis of data and development of conclusions.

DISTRIBUTION OF WORK TIME

TEACHER-LED TRAINING ACTIVITIES	INDIVIDUAL WORK
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SKILLS

Basic Skills

Students must have demonstrated knowledge and understanding in an area of study that is founded on general secondary education. Moreover, the area of study is typically at a level that includes certain aspects implying knowledge at the forefront of its field of study, albeit supported by advanced textbooks

Students must be able to apply their knowledge to their work or vocation in a professional manner and possess skills that can typically be demonstrated by coming up with and sustaining arguments and solving problems within their field of study.

Students must have the ability to gather and interpret relevant data (usually within their field of study) in order to make judgments that include reflections on pertinent social, scientific or ethical issues

Students must be able to convey information, ideas, problems and solutions to both an expert and non-expert audience

Students must have developed the learning skills needed to undertake further study with a high degree of independence

To acquire an ability for analysis, synthesis, assessment and critical reasoning.

General Skills

To acquire an ability for analysis, synthesis, assessment and critical reasoning.

Specific skills

Use and interpret social indicators and social measurement tools, combining different research designs, data collection, elaboration and testing of hypotheses and interpretation of results

Analyze and select data to provide the Judge with scientific knowledge about the crime being prosecuted, providing medical-legal and criminalistic explanations

Know how to identify the methodological and scientific foundations of Criminology. Use the appropriate techniques for each specific criminological investigation

LEARNING RESULTS

Analyze information from different sources objectively and critically.

Recognize the most relevant information to be provided in each judicial proceeding.

Select the appropriate methods in each case.

LEARNING APPRAISAL SYSTEM

ORDINARY CALL

The evaluation of the subject is continuous and formative:

- 1.- Theoretical-practical exam - It is intended to assess the theoretical and applied knowledge of the contents studied in the subject. The weighting in the final grade for this part of the course will be 65%. It is necessary to pass the exam to pass the subject.
- 2.- Research work - Group work. The weighting in the final grade for this part of the course will be 20%. Along with the content of the work, its presentation and, where appropriate, exposure in class, will be evaluated, in accordance with the criteria set by the teacher for each work. The score for the work will be unique per group, but the exhibition may change the rating of each member of the team. The work must be submitted on date and through the requested channel, and it is not the teacher's responsibility that the Virtual Classroom system collapses minutes before delivery. All papers submitted out of date or by other means will count as not submitted.
- 3.- Exercises, questions, problems- The weighting in the final grade for this part of the subject will be 10%. It is intended to evaluate the monitoring of the subject and the students' continuous work and study. Not only will the correctness of the answer be taken into account, but also the student's explanation of the steps to follow to solve the exercise.
- 4.- Attendance and participation - The weighting in the final grade for this part of the course will be 5%. It will be necessary to attend 90% of the classes to obtain this percentage.

To pass the course in the ordinary call, students must have obtained at least a 5 out of 10 on the exam. The student who does not pass the exam in an ordinary call will be suspended and must attend the following calls. For the application of all the percentages with which the subject is graded globally, it is mandatory to pass the exam (5 points out of 10). Suspending the exam in the call will mean suspending the subject in the call. If the exam is suspended in the ordinary call (and, therefore, the subject), but not the work (20%) and the exercises (10%), the approved grade of the latter two will be saved for the extraordinary call, not for subsequent enrollments or academic years.

EXTRAORDINARY CALL, FOLLOWING CALLS, ACADEMIC DISPENSATION AND ERASMUS STUDENTS (ALTERNATIVE SYSTEM)

Students can request academic exemption in duly documented exceptional cases, with the acceptance of the degree management, and an alternative evaluation system is proposed for these students. The student must request it, if possible in the first week of the course, using the corresponding form and through the teacher in charge of the course (PEC). Students who enroll for the second or successive time may take advantage of the ordinary evaluation system set out above or, where appropriate, request academic exemption. They must communicate their situation and their choice regarding the system to the teacher in the first week of the course via email.

This alternative system will consist of a theoretical-practical exam (70%), an individual research project (20%) and exercises (10%).

- 1.- The theoretical-practical exam - It is intended to assess the theoretical and applied knowledge of the contents

studied in the subject. The weighting in the final grade for this part of the course will be 70%. It is necessary to pass the exam to pass the subject.

2.- Individual research work - The research project will be carried out individually and will cover the most practical contents of the subject. Research projects from previous courses cannot be submitted. The work must be submitted on date and through the requested channel, and it is not the teacher's responsibility that the Virtual Classroom system collapses minutes before delivery. All papers submitted out of date or by other means will count as not submitted. It represents 20% of the grade.

3. Exercises, questions, problems- The weighting in the final grade for this part of the subject will be 10%. It must be delivered on date and through the requested channel, and it is not the teacher's responsibility that the Virtual Classroom system collapses minutes before delivery.

In order to pass the subject in any case, students must have obtained at least a 5 out of 10 in the exam. The student who fails the exam in this alternative system will be suspended and must attend the following calls. No grades will be saved for subsequent academic years.

The Honorary Tuition is a recognition of excellence. It is awarded only to students who are significantly different from the rest of their classmates, not only because of the grades obtained in the subject. The decision to grant Honorary Enrollment is up to the teacher.

Plagiarism, as well as the use of illegitimate means in evaluation tests, will be sanctioned in accordance with those established in the Evaluation Regulations and the University's Coexistence Regulations.

ETHICAL AND RESPONSIBLE USE OF ARTIFICIAL INTELLIGENCE

1.- The use of any Artificial Intelligence (AI) system or service shall be determined by the lecturer, and may only be used in the manner and under the conditions indicated by them. In all cases, its use must comply with the following principles:

- a) The use of AI systems or services must be accompanied by critical reflection on the part of the student regarding their impact and/or limitations in the development of the assigned task or project.
- b) The selection of AI systems or services must be justified, explaining their advantages over other tools or methods of obtaining information. The chosen model and the version of AI used must be described in as much detail as possible.
- c) The student must appropriately cite the use of AI systems or services, specifying the parts of the work where they were used and describing the creative process followed. The use of citation formats and usage examples may be consulted on the Library website(https://www.ufv.es/gestion-de-la-informacion_biblioteca/).
- d) The results obtained through AI systems or services must always be verified. As the author, the student is responsible for their work and for the legitimacy of the sources used.

2.- In all cases, the use of AI systems or services must always respect the principles of responsible and ethical use upheld by the university, as outlined in the [Guide for the Responsible Use of Artificial Intelligence in Studies at UFV](#). Additionally, the lecturer may request other types of individual commitments from the student when deemed necessary.

3.- Without prejudice to the above, in cases of doubt regarding the ethical and responsible use of any AI system or service, the lecturer may require an oral presentation of any assignment or partial submission. This oral evaluation shall take precedence over any other form of assessment outlined in the Teaching Guide. In this oral defense, the student must demonstrate knowledge of the subject, justify their decisions, and explain the development of their work.

BIBLIOGRAPHY AND OTHER RESOURCES

Basic

Berihuete Macías, Ángel; Domínguez Bravo, Carmen Ana; García Ramos, Juan Antonio; Ramos González, Carmen D. Statistics for Criminologists UCA

Additional

Orfelio G. Leon, Ignacio Montero. Research methods in psychology and education: the quantitative and qualitative traditions/4th edition. Madrid: McGraw-Hill Spain, 2015.

Ciro Martínez Bencardino. Applied basic statistics/5th edition. Bogota: Ecoe Ediciones, 2019.

Eduardo Escalante Gómez. Attitudes of postgraduate students towards statistics applied to research [electronic resource]/[Managua] :Central American University (UCA), 2010.