

Year 2024/2025 1302012 - Applied Statistics

Information about the subject

Degree: Bachelor of Science Degree in Criminology

Faculty: Faculty of Legal, Economic and Social Sciences

Code: 1302012 Name: Applied Statistics

Credits: 6,00 ECTS Year: The course is not offered this academic year Semester: 0

Module: Elective itineraries

Subject Matter: Technical-legal itinerary Type: Elective

Department: Criminology

Type of learning: Classroom-based learning

Languages in which it is taught:

Lecturer/-s:



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Module organization

Elective itineraries

Subject Matter	ECTS	Subject	ECTS	Year/semester
Technical-legal itinerary	60,00	Applied Statistics	6,00	This elective is not offered in the academic year 24/25
		Directive and Negotiation Skills	6,00	This elective is not offered in the academic year 24/25
		Economic Crimes	6,00	This elective is not offered in the academic year 24/25
		Environmental Criminology	6,00	This elective is not offered in the academic year 24/25
		Human Resources and Occupational Hazards	6,00	4/2
		Judicial Police	6,00	This elective is not offered in the academic year 24/25
		Medical Law and Healthcare Legislation	6,00	This elective is not offered in the academic year 24/25
		Research Techniques for Missing Individuals	6,00	4/2



Technical-legal itinerary		-Road Safety. Factors of Accident Rate. Investigation an Prevention of Accidents	6,00	This elective is not offered in the academic year 24/25
		Technological Crimes	6,00	This elective is not offered in the academic year 24/25
Medical and calligraphic expertise itinerary	54,00	Arsons and Criminal Investigation	6,00	This elective is not offered in the academic year 24/25
		Documentoscopy. Calligraphic Expertise	6,00	This elective is not offered in the academic year 24/25
		Expert Intervention. Criminological Report	6,00	4/1
		Legal Medicine in the Workplace	6,00	This elective is not offered in the academic year 24/25
		Medical and Surgical Physiopathology	6,00	This elective is not offered in the academic year 24/25
		Medical and Surgical Physiopathology	6,00	2/2
		Physical damage	6,00	This elective is not offered in the academic year 24/25
		Thanatology	6,00	This elective is not offered in the academic year 24/25



Medical and calligraphic expertise itinerary		Toxicology and Drug Dependence	6,00	This elective is not offered in the academic year 24/25
Psycho-social and private security itinerary	72,00	Communication and Negotiation	6,00	This elective is not offered in the academic year 24/25
		Direction and Management of Security Businesses	6,00	This elective is not offered in the academic year 24/25
		Discrimination and Gender Violence	6,00	This elective is not offered in the academic year 24/25
		Forensic Anthropology	6,00	This elective is not offered in the academic year 24/25
		Forensic Paediatrics	6,00	This elective is not offered in the academic year 24/25
		Pedagogy	6,00	This elective is not offered in the academic year 24/25
		Planning and Management of Security. Techniques and Tools	6,00	4/2
		Psychographology	6,00	This elective is not offered in the academic year 24/25
		Psychology of Testimony	6,00	4/2
		Risk Analysis. Project of Comprehensive Safety	6,00	4/1



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6,00

Psycho-social and private security itinerary

Social Intervention Networks and Situational Prevention 6,00 This elective is not offered in the academic year 24/25

Social Work

This elective is not offered in the academic year 24/25

Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

- R1 Knowing the tools of Descriptive Statistics (Tables, Graphs and Statistics) and which one is applicable in each specific case.
- R2 Understanding and developing a descriptive study of a statistical variable.
- R3 Understanding, quantifying and expressing the linear relationship between two numerical variables.
- R4 The student understands the basic principles of probability theory and is able to apply them to solve simple problems.
- R5 Knowledge and correct application of statistical concepts applied to diagnostic tests (relative risk, specificity, sensitivity).
- R6 Knowledge of basic statistical methods and techniques at a descriptive level.
- R7 Using statistical analysis.
- R8 Correctly interprets results from the literature based on confidence intervals and hypotheses validation.



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Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

BASIC		Weighting		ı		
		•	1	2	3	4
CB1	Showing a command and understanding of knowledge in an area of study that is based on the general secondary education and that is usually at a level that implies the support on advanced textbooks but also the inclusion of knowledge from the cutting edge of their field of study.					X
CB2	Being able to apply their knowledge to their jobs or vocational activities professionally and holding the competences that are demonstrated through the elaboration and defence of arguments as well as the solution of problems within their area of study.					X
CB3	The ability to gather and interpret relevant data (normally within their area of study) so as to make judgements that include a reflection on relevant social, scientific or ethical issues.					X
CB4	Being able to convey information, ideas, problems and solutions to a specialised or non-specialised public.					X
CB5	Having developed the learning abilities necessary to pursue postgraduate studies with a high degree of autonomy.					X

GENER	RAL	Weighting		
		1 2 3 4		
CG1	Understanding and integrating the different theories and scientific knowledge developed by Social, Legal and Behavioural Sciences through a critical lens in order to understand the sociocultural and personal context of all the elements that integrate the crime sphere.	x		
CG2	Being able to assess the complexity and diversity of the criminal phenomenon in a global context.	x		
CG4	The capacity for teamwork and efficient collaboration with other professionals from the different areas of criminology through negotiation and consensus.	x		



CG5	The capacity to obtain and manage efficiently the information from the scientific literature, specialised journals, databases and other sources.	x
CG6	The capacity to establish explanatory hypotheses, using predictive and operative relationships that offer responses to the criminal phenomenon in a criminological context.	X
CG7	The capacity to take decisions and to design programs and strategies for both prevention and treatment of the criminal phenomenon.	x
CG9	Knowing the key concepts and theoretical approaches developed about the criminal phenomenon, the victimisation and responses to crime and deviation	x
CG11	Being able to apply techniques and procedures for the resolution of criminological problems and decision-making in the area of Criminology.	x
CG12	The capacity to analyse and synthetize relevant data within the area of Criminology in order to make judgements that include a reflection on relevant social, scientific or ethical issues.	X
CG13	Understanding the basic principles of criminology-applied research: what can be obtained depending on the techniques and methodologies applied, when a methodology is more suitable than another, how the outcomes of a particular study can be evaluated and which are the ethical tenets that inform criminological research.	X
CG14	Knowing and understanding psychological, sociological, legal, and technical language necessary for a good command of criminological concepts.	X
CG15	The commitment to developing and keeping updated their own competencies, skills and knowledge following the standards of the profession.	x
CG16	Oral and written communication skills in the native language with regards to Criminological Science in order to present, circulate and validate the outcomes of criminological and criminalistic research both through scientific development and through the proposal of specific policies and lines of action.	x

SPECIFIC	Weighting
	1 2 3 4



CE2	Knowing the social basis of norms, fundamental values of Law, their origin, organization, functioning, and application in the recognition of fundamental rights, public liberties and others enshrined in our legal system.	X
CE3	Critical knowledge of the Legal System sector in charge of studying the crime, the penalties, and of their prosecution and execution of penalties and measures, and its application to case studies.	X
CE5	Understanding and knowing the functioning of local, regional, national, European and international institutions from their inception and as a whole and identifying the competent institution or administration in each case as well as the sectorial law applicable in each case.	x
CE6	The capacity to understand the scope of both public and private law as an integrating element and guarantor of fundamental rights in its field of action, adopting a critical vision in the analysis of this system.	x
CE7	Study and elaboration of reports in the field of minors with regards to risk situations, measures applicable to the minor offender and other types of measures applicable to minors at serious risk.	X
CE9	The capacity to argue and describe different viewpoints, being able to debate about them in a logical and coherent manner, presenting the conclusions in an adequate academic format on the topics of criminal policy, victimisation, criminalisation, and responses to deviation and crime, as well as their perception and interpretation in the media, by the public and in official reports.	X
CE10	Explanatory management from a socio-anthropological perspective of the concepts of violence, inequality and difference, delinquency, crime, social control, stigmatisation, and social deviation.	x
CE11	Understanding, from an integrating perspective, of the scientific nature of Criminology and its objective, as well as of the multidisciplinary complexity of criminological science.	X
CE12	Understanding of the phenomenon of delinquency in the fields of IT, labour, social security, image and honour, patents and trademarks as well as the strategies for investigating these crimes and knowledge of the regulations.	x
CE13	The capacity to design an empirical research project that involves the application of quantitative and qualitative techniques, the use of published data sources, statistic analyses and interpretation of results obtained.	x



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CE14	Understanding the basic principles of the criminal phenomenon, its spatial, cultural, social, economic, legal, political, labour, and anthropological dimensions.	x
CE18	Attention to victims of hatred, be it at individual, group or community levels, with particular sensibility towards those collective groups that are particularly victimised or at grave risk such as gender violence victims, minors or people with a disability.	x
CE20	A command of the research methodology in social science, design of social integration plans, preventive urbanistic actions and comprehensive training of individuals, with special sensitivity to those groups at greatest risk of social exclusion, immigration, drug addiction and others.	x
CE21	Legislative, organizational and functional knowledge of the different public and private security bodies.	x
CE23	Knowledge and application of scientific research techniques in the medical-legal and criminalistic field, as well as the basis and preparation of various expert reports.	x
CE24	Training in the elaboration of criminologist expert reports as well as in expert intervention in the different phases of the procedures.	X

Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
	40,00%	Analysis and resolution of case studies.
	40,00%	Attendance and participation in class.
	20,00%	Exam or objective test to measure obtained competences.

Observations



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CLASS ATTENDANCE IN FACE-TO-FACE DEGREES

In accordance with the development guidelines of the General Regulations for the Evaluation and Qualification of Official Teachings and Own Degrees of the UCV, in face-to-face degrees, class attendance with a minimum of 80% of the sessions of each subject will be required as a requirement. to be evaluated. This means that, if a student does not attend the sessions of each subject, in a percentage greater than 20%, he/she will not be able to be evaluated, neither in the first nor in the second call, unless the person responsible for the subject, with the approval of the person responsible for degree, in view of duly justified exceptional circumstances, exempt from the minimum attendance percentage. The same criterion will be applicable for hybrid or virtual degrees in which teachers must maintain the same percentage in the requirement of "presence" in the different training activities, if any, even if these are carried out in virtual environments.

MENTION OF DISTINCTION:

The mention of "Honors" may be awarded to students who have obtained a grade equal to or greater than 9.0. Their number may not exceed five percent of the students enrolled in a group in the corresponding academic year, unless the number of students enrolled is lower.

Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

- M1 Presentation of contents by the teacher, analysis of competencies, explanation and demonstration of abilities, skills and knowledge in the classroom.
- M2 Specific instructions about group and individual assignments for each topic.
- M3 Group work sessions supervised by the teacher. Study of legal cases, both real and fictitious, analysis, diagnosis, problems, field study, computer room, visits, data search, libraries, network, Internet, etc. Significant construction of knowledge through student interaction and activity. Critical analysis on values and social commitment.
- M4 Application of interdisciplinary knowledge.
- M5 Supervised monographic sessions with shared participation
- M6 Personalized attention and in small groups. Period of instruction and/or orientation carried out by a tutor with the objective of reviewing and discussing the materials and topics presented in the classes, seminars, readings, completion of assignments, etc.



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M7 Set of oral and/or written tests used in the initial, formative or summative evaluation of the student.

M8 Group preparation of readings, assumptions and problem -olving to present, discuss or deliver in class or tutorial.

M9 Student's study: Individual reading preparation, case studies, jurisprudence. Writings and papers to be presented or delivered in the classes or tutorials.

IN-CLASS LEARNING

IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
In-person class M1	R1, R2, R3, R4, R5, R6, R7, R8	20,00	0,80
Practical class _{M3}	R1, R2, R3, R4, R5, R6, R7, R8	25,00	1,00
Seminar M5	R1, R2, R3, R4, R5, R6, R7, R8	2,50	0,10
Group work presentation _{M4}	R1, R2, R3, R4, R5, R6, R7, R8	5,00	0,20
Tutorial M2, M6	R1, R2, R3, R4, R5, R6, R7, R8	5,00	0,20
Evaluation M7	R1, R2, R3, R4, R5, R6, R7, R8	2,50	0,10
TOTAL		60,00	2,40

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Group work мв	R1, R2, R3, R4, R5, R6, R7, R8	30,00	1,20
Individual work	R1, R2, R3, R4, R5, R6, R7, R8	60,00	2,40
TOTAL		90,00	3,60



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Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block Contents

CONTENIDOS

Introduction to Statistics. Basic Statistics Concepts. Criminological databases and analysis. Research methods. The construction of variables as the first step of Sociostatistics. Types of Variables. The data matrix as a summary and joint representation of the variables considered and the research units that are studied. Modifications and usual treatments on the data matrix. Descriptive one-dimensional. Frequency Distributions and Graphic Representations. Position measurements. Dispersion measures. Joint consideration of position and dispersion measurements. Two-dimensional descriptive. Frequency Distributions and Graphic Representations. Association and covariation. The Chi-Square. Correlation and Regression. Linear model. Causality in Social Sciences. Populations and samples. Probability Distributions. Summary of the values ??of the variables and their probabilities.

Temporary organization of learning:

Block of content	Number of sessions	Hours
CONTENIDOS	30,00	60,00



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References

