SUBJECT TEACHING GUIDE

G1684 - Statistical Inference

Double Degree in Physics and Mathematics
Degree in Mathematics

Academic year 2026 - 2027

1. IDENTIFYING DATA					
Degree	Double Degree in Physics and Mathematics Degree in Mathematics			Type and Year	Compulsory. Year 4 Compulsory. Year 3
Faculty	Faculty of Sciences				
Discipline	Subject Area: Probability and Statistics Module: Compulsory Subjects				
Course unit title and code	G1684 - Statistical Inference				
Number of ECTS credits allocated	6	Term		Semester based (1)	
Knowledge Field	Mathematics and statistics				
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. MATEMATICAS, ESTADISTICA Y COMPUTACION
Name of lecturer	ARACELI TUERO DIAZ
E-mail	araceli.tuero@unican.es
Office	Facultad de Ciencias. Planta: + 1. DESPACHO PROFESORES (1052)
Other lecturers	

4. OBJECTIVES
Specific objectives: Knowledge - Develop intuition regarding random phenomena and its methodology. - Comprehend the mathematical statistics concepts. - Handle and comprehend the different methodologies and views of the statistical inference, appreciating its applicability to real problems.
Specific objectives: Abilities - Summarize and descriptively analyze datasets. - Be able to build and use estimators - Check the veracity of certain hypothesis through the use of hypothesis testing and goodness of fit test

6. SUBJECT PROGRAM	
CONTENTS	
1	1 Simple random sampling. Statistics
2	Punctual estimation theory.
3	Interval estimation.
4	The linear model. Regression
5	5 The linear model. Analysis of Variance
6	Final exam.
7	Tutorial.

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessment	%
Midterm exam.	Written exam	No	Yes	40,00
Final exam.	Written exam	Yes	Yes	60,00
TOTAL				100,00
Observations				
If the final exam grade out of 10 exceeds the weighted sum of the midterm and final exam grades, it will replace that weighted sum. The grading criteria for the resit examination period are the same as for the ordinary examination period.				
Observations for part-time students				
The same assessment criteria apply to part-time students as to all other students.				

8. BIBLIOGRAPHY AND TEACHING MATERIALS
BASIC
CUESTA ALBERTOS, J.A. , TUERO A. Inferencia estadística (Apuntes).
LINDGREN, B.W (1993). Statistical Theory. Chapman and Hall: New York.
ROHATGI, V.K. (1976). An Introduction to Probability Theory and Mathematical Statistics. Wiley, Nueva Cork