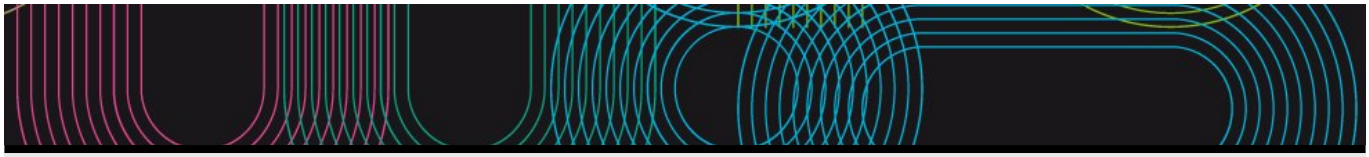

IDENTIFYING DATA				
Statistics II				
Subject	Statistics II			
Code	V03G100V01403			
Study programme	Degree in Economics			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Mandatory	2nd	2nd
Teaching language	Galician English			
Department				
Coordinator	Bergantiños Cid, Gustavo Lorenzo Picado, Leticia			
Lecturers	Bergantiños Cid, Gustavo Lorenzo Picado, Leticia			
E-mail	gbergant@uvigo.es leticialorenzo@uvigo.es			
Web	http://faitic.uvigo.es			
General description	Statistical inference			

Competencies	
Code	
C8	Ability to look for, identify and interpret relevant sources of economic information and their contents.
C10	Ability to use technical tools to formulate simple models concerning economic variables.
C12	Use empirical techniques to assess the consequences of alternative actions to ultimately choose the best option.
D5	Skill to make coherent and intelligible statements both in oral and written form.
D7	Critical and self-critical thinking.

Learning outcomes		
Expected results from this subject	Training and Learning Results	
Know how to interpret and draw conclusions about data	C8 C10 C12	D5 D7
Limit the values of an unknown parameter, controlling the error that we commit	C8 C10 C12	D5 D7
Know under what conditions one can assume that a parameter takes a specific value or range of values	C8 C10 C12	D5 D7
Know when we can make assumptions about the distribution of one or more unknown variables	C8 C10 C12	D5 D7
Know how to find linear relationships between a pair of variables	C8 C10 C12	D5 D7

Contents	
Topic	
1. Introduction	1. Reminder of Statistics I 2. Aims of Statistics II
2. Point estimation	1. Introduction 2. Properties of the estimators 3. Maximum likelihood estimation

3. Interval estimation	1. Introduction 2. Confidence intervals for normal distributions 3. Confidence intervals for proportions 4. Confidence interval for the average of a Poisson distribution
4. Parametric hypothesis testing	1. Introduction 2. Tests for normal distributions 3. Tests for proportions 4. Tests for the average of a Poisson distribution
5. Nonparametric hypothesis testing	1. Introduction 2. Test of randomness 3. Tests of goodness of fit 4. Tests of homogeneity for independent samples 5. Tests of homogeneity for paired samples 6. Test of independence
6. Simple linear regression model	1. Introduction 2. Least square estimators 3. Coefficient of determination (square R) 4. Hypothesis testing and confidence intervals for the parameters of the model 5. Prediction

Planning

	Class hours	Hours outside the classroom	Total hours
Troubleshooting and / or exercises	10	0	10
Group tutoring	2.5	0	2.5
Laboratory practises	6	0	6
Autonomous troubleshooting and / or exercises	0	30	30
Master Session	30	30	60
Long answer tests and development	6	34	40
Troubleshooting and / or exercises	1.5	0	1.5

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Troubleshooting and / or exercises	The teacher will make a series of exercises by way of example
Group tutoring	Students will discuss with the teacher their doubts about the different topics
Laboratory practises	The students will learn how to manage IBM SPSS software at the computer lab
Autonomous troubleshooting and / or exercises	Students must solve exercises that will be proposed during the classes in an autonomous way
Master Session	The teacher will explain the theoretical concepts that will be used in the course

Personalized attention

Methodologies	Description
Troubleshooting and / or exercises	The teacher will solve the doubts students have about the problem sets
Group tutoring	The teacher will discuss with the students on various aspects of the subject
Laboratory practises	The teacher will solve the doubts the students have about the IBM SPSS practices at the computer room

Assessment

	Description	Qualification	Training and Learning Results	
Long answer tests and development	A final exam.	70	C8 C10 C12	D5 D7
Troubleshooting and / or exercises	Several tests will be conducted throughout the course. The practices at the computer lab will be the 10% of the final grade, the partial proofs will be the 15%, and the active participation in class (resolution of exercises, answering to questions,...) will be the final 5%.	30	C8 C10 C12	D5 D7

Other comments on the Evaluation

The dates of examinations should be consulted on the website of the faculty:

http://fccee.uvigo.es/organizacion-docente.html

Sources of information

Basic Bibliography

F.J. Martín-Pliego López, L. Ruiz-Maya Pérez, **Fundamentos de Inferencia Estadística**, 2005, Thomson, 2005

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P. Newbold, W.L. Carlson, B.M. Thorne, **Estadística para administración y economía**, 2013, Pearson, 2013

Complementary Bibliography

G.C. Canavos, **Applied probability and statiscal methods**, 1984, Little Brown,

T.H. Woonacott, R.J. Wonnacott, **Introductory Statistics**, 1990, John Wiley,

J.D. Gibbons, S. Chakraborti, **Nonparametric Statistical Inference**, 2011, CRC Press,

V.K. Rohatgi, A.K.E. Saleh, **An Introduction to Probability and Statistics**, 2015, John Wiley,

G. Casella, R.L. Berger, **Statistical Inference**, 2002, Duxbury/Thomson Learning,

J. Baró Llinás, **Inferencia Estadística. Aplicaciones Económico Empresariales**, 1993, Parramón, 1993

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J. M. Casas-Sánchez y otros, **Ejercicios de inferencia estadística y muestreo para economía y administración de empresas**, 2006, Pirámide, 2006

C. Cuadras, **Problemas de Probabilidad y Estadística**, 1995, PPU, 1995

L. Martínez, C. Rodríguez, R. Gutiérrez, **Inferencia Estadística, un enfoque clásico**, 1993, Pirámide, 1993

D. Peña, **Fundamentos de Estadística**, 2001, Alianza, 2001

D. Peña, **Regresión y diseño de experimentos**, 2010, Alianza, 2010

F. Tusell, L. Garín, **Problemas de Probabilidad y Inferencia Estadística**, 1991, Tebar Flores, 1991

B. Visauta, **Análisis estadístico con SPSS 14**, 2007, McGraw Hill, 2007

Recommendations

Subjects that continue the syllabus

Econometrics I/V03G100V01501
Econometrics II/V03G100V01601

Subjects that it is recommended to have taken before

Statistics I/V03G100V01205
Mathematics I/V03G100V01104
Mathematics II/V03G100V01303