UNIVERSIDADE DA CORUÑA

Teaching Guide				
Identifying Data				2015/16
Subject (*)	ESTATÍSTICA		Code	730G04008
Study programme	Grao en enxeñaría en Tecnoloxías Industriais			
Descriptors				
Cycle	Period	Year	Type	Credits
Graduate	2nd four-month period	First	FB	6
Language	Spanish			
Teaching method	Face-to-face			
Prerequisites				
Department	Análise Económica e Administración de Empresas			
Coordinador	Garcia del Valle, Alejandro	E-mail	alejandro.garcia.delvalle@udc.es	
Lecturers	Crespo Pereira, Diego Garcia del Valle, Alejandro Ríos Prado, Rosa	E-mail	diego.crespo@udc.es alejandro.garcia.delvalle@udc.es rosa.rios@udc.es	
Web				
General description				

Study programme competences	
Code	Study programme competences

Learning outcomes			
Learning outcomes	Study programme competences		
Capacity for abstraction, understanding, analysis and simplification of instances and processes.	A1 B2 B3 B4 B5 B6 B7	C1 C4	
Using statistical software for solving engineering problems involving randomness and large volume of data.	A1		C1
Ability to solve statistical problems encountered in engineering.	A1		C1

Contents	
Topic	Sub-topic
Introduction to Statistics	
2. Exploratory data analysis.	
3. Probability.	
4. Ramdom variables.	
5. Discrete random variables and probability distributions.	
6. Continous random variables and probability distributions.	
7. Joint probability distributions.	
8. Statistical inference.	
9. Point estimation of parameters.	
10. Statistical intervals for a single sample.	
11. Test of hypotheses for a single sample.	
12. Regression an analysis of variance (ANOVA).	

Planning

Methodologies / tests	Competencies	Ordinary class hours	Student?s personal work hours	Total hours
Guest lecture / keynote speech	A1 B2 B6 B7	30	36	66
Problem solving	A1 B3 B4 B5 C1 C4	20	18	38
ICT practicals	A1 B6 B7 C1 C4	10	10	20
Mixed objective/subjective test	A1 B2 B3 B4 B5	3	9	12
Objective test	A1 B2 B3 B4	3	9	12
Personalized attention		2	0	2
(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.				

Methodologies	
Methodologies	Description
Guest lecture / keynote speech	Lectures about the course topics.
Problem solving	Solving exercises and statistical problems encountered in engineering.
ICT practicals	Resolution of practical cases of statistical problems by Excel.
Mixed objective/subjective test	Midterm exam of the first issues of the subject.
Objective test	Final exam of the subject

Personalized attention	
Methodologies	Description
ICT practicals Objective test Mixed objective/subjective test	The personalized attention will be made in the tutorials.

Assessment			
Methodologies	Competencies	Description	Qualification
ICT practicals	A1 B6 B7 C1 C4	Evaluation of case studies solved in small groups.	25
Objective test	A1 B2 B3 B4	Final exam with test questions and troubleshooting.	50
Mixed objective/subjective test	A1 B2 B3 B4 B5	Midterm exam with test questions and troubleshooting.	25

Assessment comments

Sources of information	
Basic	- García del Valle, Alejandro; Crespo, Diego (2010). Apuntes de Estadística para Ingenieros. Moodle UDC - Douglas C. Montgomery, George C. Runger (2011). Applied Statistics and Probability for Engineers. John Wiley
Complementary	- S. Christian Albright, Wayne Winston, Christopher J. Zappe (1999). Data Analysis & Decision Making with Microsoft Excel. Duxbury - Ronald E. Warpole (1999). Probabilidad y Estadística para Ingenieros. Pearson

Recommendations
Subjects that it is recommended to have taken before

Subjects that are recommended to be taken simultaneously
Subjects that continue the syllabus
ORGANIZACIÓN DE EMPRESAS/730G03024 SIMULACIÓN DE PROCESOS INDUSTRIAIS E OPTIMIZACIÓN/730G04065
Other comments
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(*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.