Universida_de_Vigo

IDENTIFYING DATA
Quantitative Methods of Social Research

Subject	Quantitative Methods of Social Research				
Code	P07G092V01309				
Study programme	Grado en Dirección y Gestión Pública				
Descriptors	ECTS Credits		Choose	Year	Quadmester
	6		Mandatory	3rd	2nd
Teaching language	#EnglishFriendly Spanish Galician				
Department					
Coordinator	Vidal Puga, Juan José				
Lecturers	Vidal Puga, Juan José				
E-mail	vidalpuga@uvigo.gal				
Web	http://moovi.uvigo.gal				
General description	This course aims to provide students an understanding of the methodology and techniques for quantitative research applied to Public Administration. English Friendly subject: International students may request from the teachers: a) resources and bibliographic references in English, b) tutoring sessions in English, c) exams and assessments in English.				

Training and Learning Results

Code	
A1	Students will have shown they have sufficient knowledge and understanding of an area of study, starting after completion of general secondary education, and normally reaching a level of proficiency that, being mostly based on advanced textbooks, will also include familiarity with some cutting-edge developments within the relevant field of study.
A2	Students will be able to apply their knowledge and skills in their professional practice or vocation and they will show they have the required expertise through the construction and discussion of arguments and the resolution of problems within the relevant area of study.
A3	Students will be able to gather and interpret relevant data (normally within their field of study) that will allow them to have a reflection-based considered opinion on important issues of social, scientific and ethical nature.
A4	Students will be able to present information, ideas, problems and solutions both to specialist and non-specialist audiences.
A5	That students have developed those learning skills needed to undertake further studies with a high degree of autonomy.
B1	Analysis, synthesis, problem-solving, decision-making, information- and time-management skills.
B2	Organizing and planning their own professional careers in the best possible way
B4	Commitment to ethical values and public service vocation.
B5	Critical thinking skills.
B6	To put their knowledge on public management and administration into practice.
C13	To apply the social policies and research methods and techniques and to be able to use quantitative and qualitative research methods.
C14	Ability to use the information and communication technologies (ICT) that can be applied in public management.
D2	To be able to communicate, both orally and in writing, in the two official languages (Spanish and Galician) and in a foreign language.
D3	Raising awareness about environmental issues.
D4	To master the specific ICT techniques in their respective academic and professional fields.
D5	To acquire independent learning skills.
D6	Ability to adapt to new situations.

Expected results from this subject

Expected results from this subject	Training and Learning Results			
Extract quantitative information of the population of a valid and reliable form.	A1 A2 A3 A5	B1 B2 B4 B5 B6		D6
Value the feasibility and validity of a research designed by a third party and their results.	A1 A2 A3 A4 A5	B5		D5
Interpret properly the meaning of the results of the quantitative analyses, as well as of the indicators and measures used.	A1 A2 A3 A4 A5	B1 B5	C13	D4 D5
Analyse the data by means of computer tools that allow the application of the studied methods and techniques.	A5	B6	C13 C14	D3 D4 D5
Support their conclusions by means of normalised and rigorous arguments.	A4	B4 B5		D2 D3
Judge, question and value on a constructive way the work from others.	A4	B2 B5		D5

Contents

Topic	
Data collection	Empirical translation of the theory. Technique of scales. Survey by sampling. Quality of the sources of information. Official statistical sources.
Data analysis	Normal populations. Central limit theorem. The distribution of the average of the sample. Interpretation of a confidence interval. Size of the sample to estimate the average. Distribution of a proportion. Multiple linear regression. Statistical hypothesis testing.
Computing applied to the resolution of practical cases	Use of spreadsheets for the application of the concepts and quantitative techniques to the resolution of exercises and practical cases.

Planning

	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	15	46	61
Discussion Forum	0	3	3
Practices through ICT	12	0	12
Problem and/or exercise solving	8	16	24
Problem and/or exercise solving	8	16	24
Problem and/or exercise solving	8	16	24
Objective questions exam	4	0	4

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

Methodologies

	Description
Introductory activities	Introductory activities.
Lecturing	Basic contents and theory.
Discussion Forum	Clarification of questions and collaborative work using the forums in the learning platform.
Practices through ICT	Students will have the chance to apply the theory presented in the lectures.

Personalized assistance

Methodologies	Description
Discussion Forum	Communication between readers and students via forums for general queries and internal chat for particular questions.

Assessment

Description	Qualification	Training and Learning Results

Problem and/or exercise solving	Resolution of problems of empirical translation of the theory and observation of data.	30	A1 A2 A3 A4	B1 B5 B6	C13 C14	D4 D5
Problem and/or exercise solving	Obtaining official data and its analysis.	30	A1 A2 A3 A4 A5	B1 B2 B4 B5 B6	C13 C14	D2 D4 D5 D6
Problem and/or exercise solving	Resolution of problems of data analysis.	30	A1 A2 A3 A4 A5	B1 B2 B4 B5 B6	C13 C14	D2 D4 D5 D6
Objective questions exam	Evaluation of the theoretical knowledges treaties in class.	10	A1	B5		D5

Other comments on the Evaluation

An essay and several practical activities will be assigned throughout the course. Moreover, an additional final activity and exam with objective questions will take place on official dates.

There are two ways to pass this subject:

1. Continuous assessments include practical activities (90% of the final grade) and the final theorical exam (10% of the final grade). A minimum grade in the theoretical exam will be required.

2. A final exercise includes the final test exam (50% of the final grade) and several practical activities (50% of the final grade).

Students are expected to follow the first option ("continous assesments").

Exceptionally, and always by previous request, students may do the final examination during tutoring hours.

Second call: The second call will be a single exercise, including a test exam (50% of the final grade) and several practical activities (50% of the final grade).

Warning: No grades will be saved for future calls.

Sources of information

Basic Bibliography

Cea D'Ancona, María Ángeles, **Metodología cuantitativa : estrategias y técnicas de investigación social**, Síntesis, 1996

Ritchey, F.J., **Estadística para las ciencias sociales**, McGraw-Hill, 2008

Complementary Bibliography

Callejo Gallego, Javier; Del Val Cid, C.; Gutiérrez, J.;Viedma, A.,, **Introducción a las técnicas de investigación social,**, Centro de Estudios Ramón Areces, 2010

Scheaffer;Mendejall;Lyman,, **Elementos de muestreo**, Elementos de muestreo, 2006

Carlberg, Conrad George, **Análisis estadístico con Excel**, Anaya Multimedia, 2012

Recommendations