IDENTIFYING DATA

Data Management in Public Administrations

Subject	Data Management in Public Administrations
Code	P07G095V01412
Study programme	Grado en Dirección y Gestión Pública

Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Optional	4th	2nd

Teaching language	#EnglishFriendly Spanish Galician
Department	
Coordinator	Pérez Cota, Manuel
Lecturers	Pérez Cota, Manuel
E-mail	mpcota@uvigo.es
Web	http://moovi.uvigo.gal
General description	Digital content in public administration: differentiation between the types of data, information and knowledge based on their volume, type, transmission and storage format; office data management tools; the flow of information in public administration. Tools and functionalities in data management in public administration: evolution of data types and their interchangeability; transfers between platforms and systems; security and management of data, information and knowledge in digital formats. Functionality of ICTs in public administration: evolution of the digital society and its application within the public administration; theory of the usability and management of the ICTs use; models of management of data, information and knowledge; digital security.

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	Students will acquire the learning skills that are required to pursue further studies with a high degree of independence.
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.
B3	Ability to work in teams and in multidisciplinary environments.
B4	Commitment to ethical values and public service vocation.
B6	To put their knowledge on public management and administration into practice.
C14	Ability to use the information and communication technologies (ICT) that can be applied in public management.
D1	To identify the meaning of, and to put into practice, gender perspectives in the different areas of knowledge and in one□s professional practice, with the aim of contributing to the achievement of fairness and equality in society at large.
D2	To be able to communicate, both orally and in writing, in the two official languages (Spanish and Galician) and in a foreign language.
D4	To master the specific ICT techniques in their respective academic and professional fields.
D5	To acquire independent learning skills.
D6	To acquire independent learning skills.

Expected results from this subject

Expected results from this subject	Training and Learning Results			
1. Recognise what means the management of the data in the public administrations.	A1	B1	C14	D1
2. Identify the distinct types of data, being able to differentiate them and apply them in the distinct fields of the public administration.	A2	B2		D2
	A3	B3		D4
3. Describe the forms in that the distinct data can manage and with which tools in the context of the public administration.	A4	B4		D5
	A5	B6		D6
4. Integrate the distinct types of data in his surroundings of work, being able to delimit the management to make with them of safe and efficient form.				
5. Enumerate the distinct forms in that they can handle, visualise and transfer the data with the different tools TIC, doing upsetting in the security and the reliability.				
6. Apply the valid norms in subjects of security, anonymity, transfer of information and efficient utilisation of the data.				
7. Identify and resolve real or fictitious problems in relation with the use of the data in the public administration.				
8. Use the distinct resources available TIC for the handle of the data and with his future perspectives in the public administration. New				

Contents

Topic	
Subject 1- Applications and use of the software	- Types of commercial and free Software - Types of office packages - Licences and types of licences - Software of packages and his relation and use
Subject 2- Information systems	-Data support -Formats and exchange of information -Transaction of data
Subject 3- Databases	-Definition of database -Types of databases -Normal forms basic and applied -Logical and physical design of a DB -Types of keys (primary, secondary...) -Types of data of the fields -Object Oriented Data Bases -Persistence and security
Subject 4- Dababase Management Systems	-Database Management Systems (DBMS) -Ranking and main differences -Use of the DBMS -Handle a DBMs in a Public Administration -Data persistence
Subject 5- Handle of tables	-Creation of databases: tables and relations among them -Application of the normal forms -Keys election: primary and secondary...) -Levels of connection of tables -Manipulation of data (insertion, erase and modification) -Look for information stored
Subject 6- Transfer of data	-Description of a data net -Internet, IP address and protocol types -Net elements and topologies -Public and personal Nets, proxy -Nets Interconnection: wired and wireless systems -Internet services (email, web, FTPs, browsers, telnet, searcher, etc.) -Basic control and security -Chats, messages and videoconference
Subject 7- Security	-Basic bases -Ranking of the security: physical-logical, active-passive -The security and the protection of data in the computers and in the nets -Cryptography, digital certification, electronic signature and electronic identity card

Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	14	36	50
Practices through ICT	20	42.5	62.5

Case studies	35	0	35
Essay questions exam	0.5	0	0.5
Problem and/or exercise solving	1	0	1
Case studies	1	0	1

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

Methodologies

	Description
Lecturing	In the master class (whether physical or virtual) it is intended to explain concepts that, previously, had already been indicated to the students, so that participation is more lively and the concepts acquired more easily.
Practices through ICT	Practices will be developed (which can be physical or virtual) that allow the development, through the computer (computer) of concepts seen in the master class. It is intended that students can create their own systems based on a solid logic.
Case studies	Real problems of the profession are analyzed and solved.

Personalized assistance

Methodologies	Description
Practices through ICT	It is intended that students be able to solve problems with data management in Public Administrations.
Case studies	Development of real or close to real cases.

Assessment

	Description	Qualification	Training and Learning Results			
Essay questions exam	They will do a series of enabling questions to know the competences purchased by students (can be physical or virtual). RESULTS OF LEARNING: Ability in the handle of the computers and operating systems managing data management systems and the contained of the syllabus.	40	A1 A2 A3 A4 A5	B1 B2 B3 B4 B6	C14	D1 D2 D4 D5 D6
Problem and/or exercise solving	They will do a series of exercises to know the competences purchased by students (can be physical or virtual). RESULTS OF LEARNING: Ability in the handle of the computers and operating systems. Ability of handling data management systems and of the contained of the syllabus.	30	A1 A2 A3 A4 A5	B1 B2 B3 B4 B6	C14	D1 D2 D4 D5 D6
Case studies	They will do a series of case studies to know the competences purchased by students (can be physical or virtual). RESULTS OF LEARNING: Ability in the handle of the computers and operating systems. Ability in the handle of computer tools to data management systems in the public administrations and of the contained of the syllabus.	30	A1 A2 A3 A4 A5	B1 B2 B3 B4 B6	C14	D1 D2 D4 D5 D6

Other comments on the Evaluation

Regarding the continuous evaluation, the students will be able to do (depending on the course circumstances) a maximum of 3 evaluations that will have part questions and part problem solving with which they will be able to obtain the overall qualification. In case of waiving the continuous evaluation, the final exam will be of the overall subject, with part of the exam of questions and part of problem solving and use cases.

Sources of information
Basic Bibliography
Complementary Bibliography

Microsoft Corporation, **Microsoft Office**, https://www.microsoft.com, 2023

The Document Foundation, **Libre Office**, https://es.libreoffice.org, 2023

Agencia Española de protección de datos, **Protección de datos**, https://www.aepd.es/es, 2023

Universidad Oberta de Catalunya, **Bases de datos**, https://www.uoc.edu/, 2023

Recommendations