



IDENTIFYING DATA

Data Management in Public Administrations

Subject	Data Management in Public Administrations			
Code	P07G092V01412			
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			
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General description	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>			

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
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 Ability to adapt to new situations.

Expected results from this subject

Expected results from this subject	Training and Learning Results			
	A1	B1	C14	D1
Upon completion of the subject, the student will be able to:				
1. Recognize what data management means in public administrations.	A2	B2		D2
2. Identify the different types of data, being able to differentiate them and apply them in the different fields of public administration.	A3	B3		D4
3. Describe the ways in which different data can be managed and with what tools in the context of public administration.	A4	B4		D5
4. Integrate the different types of data into your work environment, being able to define the management to be carried out with them in a safe and efficient way.	A5	B6		D6
5. List the different ways in which data can be handled, displayed and transferred with different ICT tools, emphasizing security and reliability.				
6. Apply current regulations on security, anonymity, information transfer and efficient use of data.				
7. Identify and resolve real or fictitious problems in relation to the use of data in public administration.				
8. Use the different ICT resources available for data management and with their future perspectives in public administration.				

Contents

Topic	
Subject 1- Applications and use of the software	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> -Data support -Formats and exchange of information -Transaction of data
Subject 3- Databases	<ul style="list-style-type: none"> -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- Database Management Systems	<ul style="list-style-type: none"> -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	<ul style="list-style-type: none"> -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	<ul style="list-style-type: none"> -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	<ul style="list-style-type: none"> -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	30	20	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	
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	
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	

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>, 2024

The Document Foundation, **Libre Office**, <https://es.libreoffice.org>, 2024

Agencia Española de protección de datos, **Protección de datos**, <https://www.aepd.es/es>, 2024

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

Recommendations

