

Digital Preservation Systems

Code: 44750
ECTS Credits: 6

2024/2025

Degree	Type	Year
4318290 Archival Studies and Information Governance	OB	2

Contact

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Teachers

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Teaching groups languages

You can view this information at the [end](#) of this document.

Prerequisites

Without mandatory requirements

Objectives and Contextualisation

Enable the student to:

- Identify and understand the structure, components, and characteristics of electronic documents, as well as grasp the concept of legality and validity.
- Identify and understand the types and formats of electronic documents and comprehend their specificities.
- Understand the value of electronic signatures and the services related to digital certification and other electronic identification mechanisms.
- Understand the electronic administration services applicable to the management of electronic documents. Identify and analyze the archive function in the context of electronic administration.
- Identify and understand the processes of managing electronic documents and analyze the use of cloud services in their management.
- Understand the concepts of digital preservation, its strategies and techniques to learn how to develop a digital preservation plan.
- Understand in depth the characteristics and functionalities of a digital archive

Learning Outcomes

1. CA23 (Competence) Establish an organisation's digital preservation strategy.
2. CA24 (Competence) Plan the implementation of e-governance in an organisation.
3. KA33 (Knowledge) Cite e-governance concepts, instruments and regulations.
4. KA34 (Knowledge) Identify computer applications for information and documentation management in organisations.
5. KA35 (Knowledge) Inform about digital preservation policies on the long-term preservation of electronic documents.
6. SA26 (Skill) Use the basic concepts of e-governance and digital preservation.
7. SA27 (Skill) Use archival standards and requirements, and technological aspects of digital preservation in an organisation.
8. SA28 (Skill) Apply different preservation techniques in an organisation.

Content

Unit 1 - Electronic record.

Definition. Components. Characteristics. Types and formats. Issues with electronic records. Archival models in electronic records management. Legal value of electronic records. The electronic record in the NTI.

Unit 2 - Digital certification and electronic signature

Electronic identification and signature systems. Digital certification in the Catalan AAPP. Electronic signature. Electronic signature and certificate policy of the Administration in the NTI.

Unit 3 - Electronic administration

Definition. The rights and duties in e-government. The Catalan model of e-government. Service catalog offered by the Consorci AOC. Open Data and transparency, practical cases.

Unit 4 - Electronic Record Management

The integration of electronic records in the ERMS. The electronic file in the NTI and LPACAP. Record management processes and their specificities in an electronic environment. Record management policy in the NTI. Cloud computing and Records Management System.

Unitat 5 - Digital Preservation

Introduction and basic concepts of digital preservation. Digital preservation strategies and techniques. Risk analysis in digital preservation: national and international scenarios. Digital preservation policies and plans.

Unitat 6 - Digital Archive

Definition. Models of digital Archive. Components and functionalities. Practical applications and tools. Evaluation and certification.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			

Seminar sessions and sessions in the computer room	24	0.96	CA23, CA24, KA33, KA34, KA35, SA26, SA27, SA28
on line sessions	18	0.72	CA23, CA24, KA33, KA34, KA35, SA26, SA27, SA28
Type: Supervised			
Coursework activities and practical work	28	1.12	CA23, CA24, SA26, SA27, SA28
Type: Autonomous			
Study and analysis of cases. Readings	30	1.2	KA33, KA34, KA35

The teaching methodology will combine the teacher's explanations in the classroom or virtual environment, joint activities for discussion and presentation, individual and group exercises in the classroom, as well as individual exercises outside the classroom, which may be evaluative. This combination of methodologies aims to facilitate the learning of the necessary theoretical concepts to pass the subject, as well as to apply the theory in solving situations and making decisions when dealing with topics and cases related to the subject's curriculum.

The language of instruction for the classes will be Catalan.

Note: 15 minutes of a class will be reserved, within the schedule established by the center/degree, for the students to complete the surveys evaluating the performance of the teaching staff and the evaluation of the subject/module.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Practice Unit 1: web archiving	25 %	12.5	0.5	CA23, KA34, KA35, SA27, SA28
Practice Unit 2: identification and digital signature	25 %	12.5	0.5	CA24, KA33, KA34, SA26
Practice Unit 5: risk analysis and digital preservation	25 %	12.5	0.5	CA23, KA35, SA26, SA27, SA28
Practice Unit 6: digital archive	25 %	12.5	0.5	CA24, KA33, KA34, KA35, SA26, SA27, SA28

Assessment is continuous. This subject does not have a single evaluation system as a significant part of the course content is highly practical and it does not make sense to have a theoretical exam.

Evaluation activities:

- Practice on web archives (25%)

- Practice with digital certificates and electronic signature, and development of an electronic signature management protocol (25%)
- Practice on risk analysis in a chosen institution (25%)
- Perform a set of functional tests to simulate the operation of an digital archive (25%)

The activities must be submitted within the specified deadlines and will be carried out sequentially as the course progresses.

If a student does not meet the learning requirements, there is a recovery system based on a final theoretical exam.

To participate in the recovery, students must have been previously evaluated in a set of activities that account for at least two-thirds of the total grade.

Bibliography

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CRUZ MUNDET, José Ramón y DÍEZ CARRERA, Carmen (2015). Los costes de la preservación digital permanente. Ediciones Trea

DURANTI, Luciana (2005). La conservación a largo plazo de documentos electrónicos auténticos. Hallazgos del Proyecto InterPARES,. 1a ed. Cartagena: Ayuntamiento de Cartagena.

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ISO 14721:2003 Space data and information transfer systems -- Open archival information system -- Reference model

ISO 14721:2012: Space data and information transfer systems -- Open archival information system (OAIS) -- Reference model

ISO 16363:2012 Space data and information transfer systems - Audit and certification of trustworthy digital repositories

ISO 16919:2014. Space data and information transfer systems - Requirements for bodies providing audit and certification of candidate trustworthy digital repositories:

ISO 20652:2006 Space data and information transfer systems - Producer-archive interface - Methodology abstract standard

ISO 20104:2015 Space data and information transfer systems - Producer-Archive Interface Specification (PAIS)

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Tabula [Salamanca], núm. 22 (2019): La gestión de los documentos electrónicos. Normalización y ordenamiento jurídico

Tabula [Salamanca], núm. 24 (2021): Archivos y documentos en la era de los datos

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SOLER, Joan (2009) Del bit al logos: Preservar documents electrònics a l'administració local. 1a ed. Barcelona: Diputació de Barcelona . 349 p. (Estudis, Recursos Culturals; 4)

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Software

For online sessions, we will use the Microsoft Teams application.

For practical sessions, although the computers in the computer lab will already be prepared, those who are using their laptops should install the following applications:

Applications for signing and validating electronic records:

- Signador AOC: <https://signador.aoc.cat/signador/installNativa>
- Autofirma: <https://firmaelectronica.gob.es/Home/Descargas.html>
- Digital Signature Service (DSS): <https://ec.europa.eu/cefdigital/DSS/webapp-demo/home>

Language list

Name	Group	Language	Semester	Turn
(TE) Theory	1	Catalan	first semester	afternoon