Technological Resources In Digital Libraries

Academic Year: (2020 / 2021) **Review date: 13-07-2020**

Department assigned to the subject: Library and Information Sciences Department

Coordinating teacher: SAN SEGUNDO MANUEL, ROSA

Type: Electives ECTS Credits : 6.0

Year : 1 Semester : 0

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Degree

OBJECTIVES

BASIC SKILLS
CB8 What are the students that can be used
CB9 What students communicate
CB10 That students possess the learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.

GENERAL COMPETENCES
CG1 Understand the impact of new digital environments on libraries, archives and other documentation services, as well as the role that professionals and experts in information and documentation should play in this technological and social context.
CG2 Identify lines of technological innovation in libraries and archives and documentation centers, and undertake possible projects for their development. Do you
CG5 Recognize the growing importance of teamwork in the workplace and ability to adapt and integrate in different work environments, maintenance relationships and fluid communications.
CG8 Value rigorous and well-done work, when planning, organizing and developing one's own activities, demonstrating initiative, creativity and a sense of responsibility, maintaining interest throughout the process, and feeling personal satisfaction with the results achieved.
CG9 Integrate knowledge, trial forms and communicate their conclusions, as well as the latest knowledge and reasons that are sustainable, specialized public and not specialized in ambiguities.
CG10 Recognize the need for continuous adaptation to the media in the productive sectors, and to technological and organizational innovations related to the profession, showing interest in the activities of the profession, the use of new techniques, processes, tools and technologies

SPECIFIC COMPETENCES
CE1 Know and analyze the current state and future prospects of technological progress and its application in libraries and archives.
CE5 Examine the main security problems associated with network information, as well as knowledge of the protection systems in this digital environment

RESULTS OF LEARNING
This subject focuses on training students in the various technical and legal aspects of the resources that determine the support tools for information and documentary tasks. A crucial aspect of the training is that students acquire the necessary skills for the implementation of digital document management projects (EDRMS). For this, the student will be provided with the necessary skills to plan, analyze and manage the implementation of a solution suitable for typical scenarios in the framework of digital continuity and access to information in networks. You will be trained in basic skills to evaluate different technological alternatives for the creation of EDRMS, ensuring your access by authorized users and institutions.

The student after passing the subject must:
Design and evaluate initiatives and strategies for managing large volumes of data in public and private organizations
Know tasks related to Data in terms of data debugging and interoperability.
Apply techniques to prepare studies and reports that allow analyzing and evaluating data management in an organization.
Know and understand the objectives of information security and threats and vulnerabilities of

information systems.
Know and understand the problems of authentication and integrity of the electronic document and the tools to guarantee them.
Know and apply the legal regime of administrative transparency and public information.
Understand and apply the legal regime of information and documentation in public organizations on storage media.
Select open source or commercial tools for the implementation of effective and efficient document and file management systems.
Analyze the most relevant technological resources in the treatment of digital information.
Use and apply the necessary methods, techniques and tools in the implementation, development and exploitation of digital information systems and services.

DESCRIPTION OF CONTENTS: PROGRAMME

TOPIC 1. Technological resources in the knowledge society
1.1. Electronic information and technological universe
1.2. Production and economic value of technological resources
1.3. The new society and economy based on technological resources
1.4. Technological resources in the Public Administration
1.5. Technological resources programs and projects related to the knowledge society in the European Union and Spain

TOPIC 2. Technological resources in the Digital Library
2. 1. Introduction to the digital library
2.2. Digitization, electronic book and electronic book reader
2.3. Interoperable repositories
2.4. Navigation tools, search engines and recovery
2.5. Technologies of participation, virtual reality and augmented reality in libraries

TOPIC 3: Technological development in Information Systems
3.1. Introduction to Technology and Technological Management
3.2. Technological tools of an information system:
- 3.2.1 Technological tools in management
- 3.2.2. Technological tools in the academic and research environment
- 3.2.3. Technological tools in electronic information
- 3.2.4. Technological tools in libraries

3. 3. Introduction to Technological Innovation, Transfer and Surveillance

TOPIC 4. Technologies for structuring digital information
4.1. Technological development from the semantic web
4.1.1. Ubiquitous Web
4.1.2 3D Web
4.1.3. Multimedia Web
4.1.4. Permanent web
4.2 Linked data and open innovation in libraries
4.2.1.Wiki data
4.2.2.Big data
4.3. Future perspectives of technological tools
4.3.1 Information bubbles: intelligent algorithms. Google algorithms
4.3.2. Exponential pattern of technological growth

TOPIC 5. Access to digital technological resources
5.1. Insufficiencies in access to technological resources. Structural and formal
5.2. Application of advanced information retrieval techniques
5.3. Recovery interfaces
5.4. User behavior
5.5. Person-computer paradigm
5.6. New forms of interaction with information and digital objects

ITEM 6. Digital technology resource industries
6.1. Current technology resource industries

6.2. Industry of experience
6.3. Free software vs. technological monopoly
6.4. Ordering of digital technology

ASSESSMENT SYSTEM

The evaluation continues:

SE1 Participation in the 6 forums in virtual educational platform 5%
SE2 Implementation of the practices and insertion in the 6 forums 20%
SE3 Implementation of 6 evaluable and scoring questionnaires 15%

Total evaluation continues 50%

The final evaluation:

It is essential to carry it out, it will assume the rest of the qualification (50%) through:

SE4 Final Work 35%, Final Questionnaire 15% and Final Exam 15% *

Total final evaluation 50%

The final grade will be the sum of
SE1 SE2 SE3 SE4

* The final exam will be done in face-to-face mode, at Carlos III University or at a university-sponsored center that guarantees the student's identity, and must pass it in order to be able to approve the corresponding subject / subject.

System of
Evaluation Minimum Weighting (%) Maximum Weighting (%)
SE1 5 5
SE2 20 20
SE3 15 15
SE4 50 50

% end-of-term-examination:	50
% of continuous assessment (assigments, laboratory, practicals…):	50

BASIC BIBLIOGRAPHY

- RAMONET, Ignacio (ed.). Internet, el mundo que llega: Los nuevos caminos de la comunicación. , Alianza Editorial,, 1998
- Arms, William Digital Libraries, Massachusetts: MIT Press, 2000. Edición online actualizada en 2005: http://www.cs.cornell.edu/wya/diglib/.
- CASTELLS, Manuel. La Era de la Información. Economía, Sociedad y Cultura, Madrid: Alianza Editorial, 2003

- Comisión Europea. Sociedad de la Información i2010: Iniciativa de bibliotecas digitales, http://ec.europa.eu/information_society/activities/digital_libraries/index_es.htm.