

Academic Year: (2024 / 2025)

Review date: 17-05-2024

Department assigned to the subject: Computer Science and Engineering Department

Coordinating teacher: MOLINA LOPEZ, JOSE MANUEL

Type: Electives ECTS Credits : 3.0

Year : 1 Semester : 2

OBJECTIVES

BASIC SKILLS

CB8 That students be able to integrate knowledge and face the complexity of making judgments from information that, incomplete or limited, includes reflections on social and ethical responsibilities linked to the application of their knowledge and judgments

CB9 That students know how to communicate their conclusions and the latest knowledge and reasons that support them to specialized and non-specialized audiences in a clear and unambiguous way

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 of information and documentation professionals and experts 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. The

CG5 Recognize the growing importance of teamwork in the world of work and demonstrate adaptability and integration in different work environments, maintaining relationships and communication flows.

CG8 To value the rigorous and well-done work, in planning, organizing and developing one's own activities, demonstrating initiative, creativity and sense of responsibility, maintaining interest throughout the process, and feeling personal satisfaction with the results achieved.

CG9 Integrate knowledge, make judgments and communicate their conclusions, as well as the latest knowledge and reasons that support them, to specialized and non-specialized audiences in a clear and unambiguous way.

CG10 Recognize the need for continuous adaptation to different jobs in different productive sectors, and technological and organizational innovations related to the profession, showing interest in incorporating new techniques, processes, tools and techniques into the profession's own activities. technologies.

SPECIFIC COMPETENCES

CE1 To know and analyze the current state and future prospects of technological progress and their application in libraries and archives.

CE5 Examine the main security problems of network information, as well as the knowledge of the protection systems existing in this digital environment

LEARNING OUTCOMES

This subject focuses on training students in the various technical and legal aspects of the resources that determine the tools to support information tasks and documentaries. A crucial aspect of training is that students acquire the skills necessary for the implementation of digital document management projects (EDRMS). To this end, the student will be given the necessary skills to plan, analyze and manage the implementation of an appropriate solution to typical scenarios within the framework of digital continuity and access to information in networks. It will be trained in basic skills to evaluate different technological alternatives for the creation of EDRMS ensuring their access by users and authorized institutions.

The student after passing the subject must:

To design and evaluate initiatives and strategies of application of management of large volumes of data

in public and private organizations
 Know Data related tasks regarding data debugging and interoperability.
 To apply techniques to elaborate studies and reports that allow analyzing and evaluating the data management in an organization.
 Know and understand the objectives of information security and the 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 efficient 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

Subjects common to the subjects:

Use of management and treatment technologies for large funds of documents and data.

Subjects specific to each subject:

Subject 3. Infrastructure of computer services

Theory

Introduction to Computer Systems

Technological resources of Computer Systems: High Availability Computer Systems.

Design of Infrastructures of Computer Systems.

Evaluation and sizing of computer systems.

Introduction to Computing in Grid and Grid Data: Grid Data for Digital Files.

Practices

¿Execution of exercises and practical cases about the contents of the subject

LEARNING ACTIVITIES AND METHODOLOGY

* THE TRAINING ACTIVITIES ACORDING TO THE STUDY PLANIFICACION WILL BE:

AF1 Individual work for the study of theoretical and practical materials developed and contributed by the teacher.

AF2 Individual work for problem solving and case studies.

AF3 Theoretical-practical classes.

AF4 Tutorials.

AF5 Group work.

AF6 Active participation in forums enabled by the teacher in the virtual educational platform.

AF7 Perform self-assessment test for content review.

AF8 Synchronous online debates and colloquiums

Type of activity Is it synchronous? Total hours Hours of synchronous interactivity No. In-person hours % In-person attendance Student

AF1	NO	24,7	0	0
0				
AF2	NO	22	0	0
0				
AF3	SI	3	3	3
100				

AF4 0	SI	3	3	0
AF5 0	NO	30	0	0
AF6 0	NO	1,3	0	0
AF7 0	SI	3	3	0
AF8 0	SI	3	3	0
	Total	90	12	3
3,33%				

* TEACHING METHODOLOGIES:

MD1 Presentations in the teacher's class with support of computer and audiovisual media, in which the main concepts of the subject are developed and the bibliography is provided to complement the students' learning.

MD2 Critical reading of texts recommended by the teacher of the subject:

Press articles, reports, manuals and / or academic articles, either for later discussion in class, or to expand and consolidate the knowledge of the subject.

MD3 Resolution of practical cases, problems, etc. Raised by the teacher individually or in a group.

MD4 Exposition and discussion in class, under the moderation of the professor of subjects related to the content of the subject, as well as of practical cases.

MD5 Preparation of individual and group work and reports.

MD6 Reading of theoretical and practical teaching materials.

TUTORIALS SCHEME

The schedules of the tutorials, adjusted to the disposition by the University, can be consulted in the space of the course in the platform (Aula Global). They will include at least two sections, one for face-to-face and the other for online tutorials. In addition to these official tutorials, students can request and arrange with the teacher online or on-site tutorials outside those times.

ASSESSMENT SYSTEM

% end-of-term-examination:	50
% of continuous assessment (assignments, laboratory, practicals...):	50

SE1 Participation in class and forums in virtual educational platform

SE2 Individual or group work done during the course

SE3 Carrying out evaluable and scoring questionnaires

SE4 Exam or Final Work *

SE5 Presentation, content and public defense of TFM

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

System of Evaluation	Minimum Weighting (%)	Maximum Weighting (%)
SE1	5	5
SE2	30	30
SE3	15	15
SE4	50	50

BASIC BIBLIOGRAPHY

- Moreno Pérez, Juan Carlos Sistemas informáticos y redes locales, RAMA, 2012

