

Academic Year: (2023 / 2024)

Review date: 28-01-2024

Department assigned to the subject: Library and Information Sciences Department

Coordinating teacher: SAN SEGUNDO MANUEL, ROSA

Type: Compulsory ECTS Credits : 6.0

Year : 1 Semester : 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Students of the Degree in Information Management and Digital Content

OBJECTIVES

The students at the end of the course must know:

Know the main classification and indexing systems

Structure knowledge through taxonomies

Description with metadata

Linked Open Data and Linked Open, Resource Description Framework Standards: RDF and RDFS

Management of descriptive logics for the creation and reasoning of ontologies

To know the functions of the labels and collaborative actions. Relational and automatic semantic processing

Use and apply the techniques, standards and other instruments used in the representation of electronic information for recovery by subject matter.

Distinguish and evaluate the characteristics and uses of different content representation vocabularies (taxonomies, thesauri, ontologies and others) and choose the most appropriate for each type of information or electronic information services -

Know and select the appropriate international standards for the creation of vocabularies.

Develop controlled vocabularies: classification systems, alphabetical headings, functions, ensure consistency and updating and draft user manuals for use.

Manage specific software ontologies, taxonomies and other vocabularies.

Analyze, advise and train producers, users and customers of digital information services, in relation to the treatment and thematic recovery of their information.

Use computer tools for the implementation, development and exploitation of semantic-based information systems that allow the processing and retrieval of human knowledge.

DESCRIPTION OF CONTENTS: PROGRAMME**PART I: ORGANIZATION OF KNOWLEDGE****Topic 1: Systematic knowledge organization on line systems**

- 1.1. Concept of Digital Knowledge Organization Systems
- 1.2. Main Digital Knowledge Organization Systems
- 1.3. Structure UDC on line
 - 1.3.1. Characteristics, structure and use of the CDU
 - 1.3.2. Main classes
 - 1.3.3. Auxiliary numbers

Topic 2: UDC on line: 0, 1,2,3

- 2.1. Class 0 Generalities
- 2.2. Class 1 Philosophy
- 2.3. Class 2 Religion
- 2.4. Class 3 Social Sciences

Topic 3: UDC on line: 5, 6

- 3.1. Class 5 Pure Sciences
- 3.2. Class 6 Applied Sciences

Topic 4:UDC on line :7, 8, 9

- 4.1. Class 7: Fine Arts, Games, Shows and Sports
- 4.2. Class 8: Language, Linguistics and Literature
- 4.3. Class 9: Geography, Biographies and History

Topic 5: Alphabetic Knowledge Organization Systems: Subject Headings on line

- 5.1.1. Types, characteristics and use of subject headings on line
- 5.1.2. Subject Heading Lists on line
- 5.1.3. Forms of headings

Topic 6: Alphabetic Knowledge Organization Systems: Subject Headings on line

- 6.1. Forms of headings on line
- 6.2. Structure, scope notes and references

PART II: REPRESENTATION OF KNOWLEDGE

TOPIC 7 Folksonomies: digital collaborative classification and labeling

- 7.1. Concept of Folksonomy
- 7.2. Cooperative Sorting
- 7.3. Forms of digital collaborative labeling

TOPIC 8. Digital thesauri

- 8.1. Thesaurus Concept
- 8.2. Composition of the Thesaurus
- 8.3. Thesaurus Classes
- 8.4. Standards for presentation of descriptors
- 8.5. Methodology for the preparation of Thesauruses
- 8.6. Maintenance and updating of thesauruses
- 8.7. Digital thesauri

TOPIC 9: Formal structures of knowledge representation: Digital meta-information

- 9.1. Library metadata concept
- 9.2. Typology
- 9.3. Elements and practical application of the Dublin Core format
- 9.4. Uses of the matter element of the Dublin Core

TOPIC 10: Formal structures of knowledge representation. Semantic web

- 10.1 Semantic Web
 - 10.1.1. Historical aspects
 - 10.1.2. Structure of the semantic web
 - 10.1.3. Semantic web construction model
 - 10.1.4. Future of the semantic web

TOPIC 11 11. Formal knowledge representation structures: Interoperability between information systems

- 11.1. Interoperability concept
- 11.2. Types of semantic interoperability
- 11.3. Semantic interoperability. Applications
- 11.4. National Semantic Interoperability Scheme

TOPICS 12 Introduction to Open Access: Document Repositories

- 12.1. Scientific communication systems: commercial edition vs. Open Access
- 12.2. Towards open knowledge
- 12.3. Open Science Repositories. Advantages and benefits of Open Access
- 12.4. Open Access Policies

LEARNING ACTIVITIES AND METHODOLOGY

1. TEACHING METHODOLOGY

1.1. THEORETICAL CLASSES. In them will be exposed subjects related to the subject. All of them will be accompanied by clear examples.

1.2. PRACTICAL CLASSES. Practical exercises will be done, corrected in the classroom and also through a global classroom

1.3. FORUM OF DISCUSSIONS. A global classroom discussion forum will be held for each of the six themes

ASSESSMENT SYSTEM

EVALUATION OF THE SUBJECT

Evaluation continues 40%:

Practical activities: The weekly practices should be carried out, individually, by all the students. Practices and participation in discussion forums. It will have an impact on the final grade of 30%

The theory questionnaires, 10%

Final evaluation 60%:

Final exam, 60%

To pass the subject will be necessary, to pass the final exam

% end-of-term-examination:	60
% of continuous assessment (assignments, laboratory, practicals...):	40

ADDITIONAL BIBLIOGRAPHY

- Mathes, Adam Folksonomies. Cooperative Classification and Communication Through Shared Metadata, <http://www.adammathes.com/academic/computer-mediated-communication/folksonomies.html>, 2004

BASIC ELECTRONIC RESOURCES

- International Society for Knowledge Organization . ISKO: <https://www.isko.org/>