الجمهورية الجزائرية الديمقراطية الشعبية

REPUBLIQUE ALGERIENNE DEMOCRATIQUE ET POPULAIRE

MINISTERE DE L'ENSEIGNEMENT SUPERIEUR ET DE LA RECHERCHE SCIENTIFIQUE

Université 8 Mai 1945 Guelma

Faculté de mathématiques et de l'informatique et de sciences de la matière

وزارة التعليم العالي والبحث العلمي

جامعة 8 ماي 1945 قالمة

كلية الرياضيات ، الاعلام الآلي و علوم المادة

SYLLABUS

Unit of Teaching : UEF3
Domain: Computer Science
Semester : 3
Weekly Hourly Workload : 3h00 Course + 1h30 PW
Teacher in charge : HANNOUSSE Abdelhakim
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Module : Knowledge Engineering
Academic Year : 2023/2024
Credits : 5 **Coefficient** : 3
Teaching Language : En
Grade : MCA
Desk : -

Course Overview:

The Knowledge Engineering course provides students with a comprehensive understanding of the principles, methodologies, and techniques involved in engineering knowledge-based systems. The course explores the process of capturing, representing, and making use of knowledge to develop intelligent systems that can reason, learn, and solve complex problems. Students will gain practical skills in knowledge acquisition, knowledge modeling, and the application of knowledge engineering tools and methodologies.

Prerequisites: None

Course outline:

Chapter I: Introduction to Knowledge Management (KM)
1. Data, Information and Knowledge
2. Types of Knowledge: Tacit and Explicit
3. Definition of Knowledge Management and Knowledge Management systems
4. Importance of Knowledge Management

Chapter II: Knowledge Management Cycles/Models
1. Overview of existing KM Cycles
2. Integrated KM Cycle
3. Knowledge Management Models

Chapter III: Knowledge Capture and Codification
1. What is a knowledge capture?
2. Explicit Knowledge Capture
3. Tacit Knowledge Capture
4. What is a knowledge codification?
5. Knowledge codification techniques

Chapter IV: Design and development of KM systems
1. Knowledge management system life cycle
2. Audit and analysis

3. Forming the knowledge management team
4. Designing the knowledge management blueprints
5. Implementation of the knowledge management system
6. Verification, Validation, and performance evaluation
7. Scaling and Enhancement

Chapter V: Knowledge Management Tools

8. Knowledge Capture and Creation Tools
9. Content Management Tools
10. Knowledge Sharing and Dissemination Tools

Course assessment mode: Final exam (60%) + Continuous assessment (40%)

Bibliography:

1. Kimiz Dalkir, Knowledge Management in Theory and Practice**,** 4th edition, MIT Press, 2023.
2. Anthony J. Rhem, Knowledge Management in Practice, 1st edition, Auerbach Publications, 2016.
3. Santhosh Shekar, Design Knowledge Management System, Penman Books, 2021

Date & Signature
03/09/2023

HANNOUSSE Abdelhakim