Department of ………Computer…………..............

College of ………………Science………………………..

University of…Cihan Campus / Sulaimaniay….

Subject: Database System II

Course Book – Second Year / Semester 2

Lecturer's name: Dr.Nzar A. Ali, PhD.

Academic Year: 2022/2023

1. Course name	Database System I
2. Lecturer in charge	Dr. Nzar A. Ali
3. Department/ College	Computer / Science
4. Contact	e-mail:nzar.ali@sulicihan.edu.krd
5. Time (in hours) per week	Theory: 2-hour Practical: 2-hour
6. Office hours	2hr/week
7. Course code	CSC3111
8. Keywords	DBMS Structure, DBMS Architecture, Functional Dependency, Normalization

9. Course overview:

This course covers advanced aspects of database management including structure and architecture of database, query optimization, functional dependencies and different types of normalization. There is extensive coverage and hands on work with SQL, and database instance tuning.

10. Course objective:

- To provide students with essential techniques used in DBMS
- To provide students to choose design and implement a DBMS in a complex domain
- Describe how database management systems function internally. Interpret and comparatively
- Implement major components of a database management system and analysis their performance

11. Student's obligation

- Regular attendance to the lectures at the exact time
- Participating in the daily activity
- Preparing to sudden quizzes

12. Forms of teaching

 The English language will be used in conducting the class. Whiteboard and data show will be used for lectures slides presentation.

13. Assessment scheme

Students' assessment will be evaluated according to the following scheme

Midterm	25 %
Activities	10 %
Midterm Practical Exam	15 %
Final Practical Exam	15 %
Final Exam	35 %

14. Forms of teaching

The English language will be used in conducting the class. Whiteboard and data show will be used for lectures slides presentation.

15. Course Reading List and References:

Database Management system, 3rd edition, R. Ramakrishnan J. Gehrke,2003

16. The Topics:

Theory Syllabus

NO	Subject Title
1	Types of the databases (Unstructured, Structured, Semi structured)
2	DBMS Functions
3	Three-Schema Architecture and data independence
4	DBMS Structure (File manager, DDL and DML Compiling, Query optimizer)
5	Functional dependency concept
6	Types of Functional dependency
7	Attribute Closure
8	Midterm Exam
9	-
10	Prime and non-prime attributes
11	Full Functional Dependency
12	Normalization concept using FD
13	First, Second, third Normal Form using FD
14	Boyce Code Normal Form using FD
15	Review of the course
16	Final exam

17. Peer Review:

Dr.Lway Faisal Abdulrazak

18. Lecturer in charged

Dr. Nzar A. Ali