University of Basrah
College of Computer Science &Information Technology
Department of Information Systems

Year:	2018/2019	**Semester:**	First	**Lecturer :** *Asaad Alhijaj*

Course Information	
Course Title	Database Principle
Course Number	IS203
Prerequisites	IS101 , IS105
Credits	3 Hours
Teaching Method	2 Hour of Lecture

Assessment Policy		
Assessment Type	**Expected Due Date**	**Weight**
First Exam	4/11/2018 to 8/11/2018	10%
Second Exam	16/12/2018 to 20/12/2018	10%
Student activities (Quizzes)	To be announced later	10%
Lab/	Case Study (Database) + 3 Prac. Exam	10%
Mini Project	Discussed with Final Practical Exam	10%
Final Exam(Practical + Theoretical)	To be announced later	50%

Learning Outcomes
Basic concepts, Database and database users, Database concepts and architecture, Data modeling with ER model, Relational model, language and systems, Relational data model, Constraints (integrity), Relational algebra, SQL, Database design, theory and methodology, Functional dependencies and normalization, Relational database design algorithm, Practice of database design and tuning, Object-oriented and extended relational database technology, Concepts for object-oriented database, standard languages and design, extended relational databases.

Week	**Topics**
1	Introduction to Databases
2,3	Conceptual Database Design
4,5	Entity Relationship Diagram (ERD)
6	Enhanced ER (EER) Model Concepts
7	Relational Data Model and Relational Database Constraints
8	Relational Algebra
9	Normalization
10	Structured Query Language (SQL)
11,12	Advanced SQL
13	File Structure and Indexes
14	Database Performance Issues

Textbooks
Kroenke, David, and David J. Auer. *Database concepts*. Prentice Hall, 2013.

Reference
Silberschatz, Abraham, Henry F. Korth, and S. Sudarshan. *Database system concepts*. 4th edition. Hightstown: McGraw-Hill, 2002 **ISBN 0-07-255481-9**.