

**Faculty of Commerce & Business Administration**

**Database**

**Information :**

**Course Code :** BIT 322

**Level :** Undergraduate

**Course Hours :** 3.00- Hours

**Department :** Department of Business Information Technology

**Instructor Information :**

Title	Name	Office hours
Lecturer	Amr Abd Elwahed Mahmoud Abozeid	2
Teaching Assistant	Nourhan Mohamed Ali Fahmy Hassan Swelam	1

**Area Of Study :**

This course introduces the principles of database management and their applications in organizations. The topics are dealt with from the point of view of the database developer and the database administrator.

**Description :**

This course deals with the principles of database management and their application in organizations. The material is dealt with from the point of view of the user and the database administrator rather than the technical specialist who develops database software.

**Course outcomes :**

**a.Knowledge and Understanding: :**

1 -	Be aware of the concepts of databases, their typical users, DBMS concepts, terminology, and architecture.
2 -	Be aware of the basic concepts necessary for a good understanding of databases design and implementation.

**b.Intellectual Skills: :**

1 -	Apply their knowledge to choose rationally between different database systems architecture designs, and implementations.
2 -	Apply logical thinking to solve problems related to the design and implementation in different environments and user requirements.

**c.Professional and Practical Skills: :**

1 -	Design database systems conceptually using the Entity-Relationship(ER) Model.
2 -	Acquire skills to solve design problems in different database systems environments.
3 -	Learn how to use Data Definition Language (DDL), Data Manipulation Language (DML) operations in Database creation and maintenance, and applying them using ORACLE 11G (SQL PLUS)/MS SQL Server.

**d.General and Transferable Skills: :**

1 -	Assess problems.
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2 - Interact efficiently with others.

**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction To Databases and Conceptual Modeling	4	3	1
Database System Concepts and Architecture Part1	4	3	1
Database System Concepts and Architecture Part2	4	3	1
Data Modeling Using The Entity Relationship Model	4	3	1
First Mid-Term	4	3	1
Database Design Normalization	4	3	1
Data Definition Language (DLL) in SQL	4	3	1
Data Manipulation Language (DML) in SQL Part1	4	3	1
Data Manipulation Language (DML) in SQL Part2	4	3	1
Second Midterm Exam	4	3	1
Data Manipulation Language (DML) in SQL Part3	4	3	1
Data Control Language (DCL) in SQL	4	3	1
Case Studies 1	4	3	1
Revision	4	3	1

**Teaching And Learning Methodologies :**

Data show and computer in lectures.

Demonstration videos.

Group discussion

Self-learning

Practical.

**Course Assessment :**

Methods of assessment	Relative weight %	Week No	Assess What
1st Mid-Term Exam	20.00	6	
2nd Mid-Term Exam	20.00	11	
Final Exam	40.00	16	
Semester Work	20.00	13	

**Books :**

Book	Author	Publisher
Fundamentals of Database Systems	Ramez Elmasri / Shamkant Navathe	Pearson

**Course Notes :**

Handouts.

**Web Sites :**

- Oracle 11G reference Or SQL Server 2008 reference
- Codd, E.F. (1970). "A Relational Model of Data for Large Shared Data Banks". In: Communications of the ACM 13 (6): 377–387.
- William Hershey and Carol Easthope, "A set theoretic data structure and retrieval language", Spring Joint Computer Conference, May 1972 in ACM SIGIR Forum, Volume 7, Issue 4 (December 1972), pp. 45-55, DOI=10.1145/1095495.1095500
- Ken North, "Sets, Data Models and Data Independence", Dr. Dobb's, 10 March 2010