

Jadara University

Faculty: *Science and Information Technology*

Department: *Computer Science*

(Course Syllabus)



Course Title	Credit Hours	Course No.	Year(semester)	Lec./Lab. Credit
Database	3	501341	2019-2020 2nd Semester	Lecture : 3
Lecturer	Room No.	E-mail		Office Hours
Mohammad Omar Al-issa	Computer center	Mohammadal-issa@jadara.edu.jo		10:00-11:30 [Mun,Wens]

Catalog Description

This Course uses a Structured Query Language or (SQL), which is a popular computer language that is used by diverse groups such as home computer owners, owners of small businesses, end users in large organizations and programmers. This course will begin with many concepts about relational databases, after that it will discuss the Data Definition Language (DDL commands), Data Manipulation Language (DML commands), and Data Control Language (DCL commands), then the integrity constraints which are used with relations and how to retrieve data by using single and multiple-table queries.

Text Book

Title	Fundamentals_of_Database_Systems,_6th_Edition
References	fundamentals-of-database-systems-7th

Assessment Policy

Assessment Type	Expected Due Date	Weight
First Exam	week 5	20%
Second Exam	Week 9	20%
Final Exam	Week 13	50%
Assessments, Quizzes	Weeks 3 , 7	10%

Course Objectives

At the completion of the course, students will be able to:

- Understand the concepts and terminology associated with relational databases.
- Run SQL commands in Oracle.
- Create, alter, rename, drop and describe tables.
- Identify and use data types to define columns in SQL tables.
- Explain and use different types of integrity constraints and how to create relationships between tables.
- How to update data in tables.
- Use different commands for retrieving data with different shapes by using select statement.
- How to use single-table and multiple-table queries.

Learning Outcomes:

Successful completion of this course should lead to the following learning outcomes :

A- Knowledge and Understanding:

- A1) List the basic concepts and terminology associated with relational databases.
- A2) List the concept of table, columns and rows in database.
- A3) List the role of Structured Query Language.

B- Intellectual Skills:

- B1) Select a problem for solving and constructing it with using some concepts.
- B2) Show the important of oracle concept and what are the benefits by using it.
- B3) Analyze and construct a case study for each group of students to implement the database.
- B4) Analyze and compare different techniques for retrieving data from the database.

C) Subject Specific Skills:

- C1) Implement solutions for a database on paper before they begin working in SQL.
- C2) Implement solutions of any wrong relationship between tables in database.
- C3) Learn a specific and new operating system environment, with new language editor.
- C4) Learn how to install and manage SQL tool from Oracle.

D) Transferable Skills:

- D1) Discuss and work in a group in order to design and implement solutions of several database systems.
- D2) Discuss and work in a group in order to study and present a case study of any database system.

Teaching & Learning Methods

- Class lectures, lecture notes, text book to achieve the course objectives.
- You should read the assigned chapters before class. Ask questions.
- You are responsible for all material covered in the class.

Course Content

Week	Topics	Reference (chapter)
1,2	Introduction to DBMS	CH1, CH2
3,4	RDBMS	CH3
5,6,7,8	SQL(DDL,DML,DCL) - PL/SQL	CH4,CH5
9,10,11	Entity Relationship (ER)	CH7, CH8
12,13,14	Anomalies (Normalization)	CH15,CH16

Exams/projects /Assignments	Topics	Date
1 st Exam	Ch1 & 2 & 3	Week 7
2 nd Exam	Ch4 & 5	Week11
Final Exam	All	Last week