



Jordan University of Science and Technology
Faculty of Computer & Information Technology
Computer Information Systems Department

CIS421 Database Applications

First Semester 2020-2021

Course Catalog

3 Credit Hours. The main objective of this course is to provide students with the theoretical background and practical experience relating to the design and implementation of relational databases using Oracle DBMS.

Course References

Short name	Book name	Author(s)	Edition	Other Information
Reference	Oracle Database 12c PL/SQL Programming	Michael McLaughlin.	1st Edition	
Textbook	Oracle Database 12C: The Complete Reference,	Bob Bryla,	1st Edition	
Reference	Oracle 12c for Dummies,	Chris Ruel.	1st Edition	

Instructor

Name	Prof. Mostafa Ali
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Office Hours	
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Instructor

Name	Mr. Eyad Alshareef
Office Location	PH4 L-1
Office Hours	Sun : 10:30 - 11:30 Sun : 14:30 - 16:30 Mon : 14:00 - 15:00 Tue : 10:30 - 11:30 Wed : 14:00 - 15:00
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Class Schedule & Room
Section 1: Lecture Time: Sun, Tue : 10:00 - 11:30 Room: منصة الكترونية
Section 3: Lecture Time: Mon, Wed : 11:30 - 13:00 Room: منصة الكترونية

Teaching Assistant
Mrs. Heba Shatnawi(), Mrs. Khadijah Shatnawi()

Prerequisites		
Line Number	Course Name	Prerequisite Type
1742210	Cls221 Fundamentals Of Database Systems	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Review of SQL DDL and DML	From Textbook
Weeks 2, 3	PL/SQL ? An introduction (Declare PL/SQL Variables Write Anonymous PL/SQL Blocks SQL Statements in a PL/SQL block Composite Data Types Control Structures)	From Reference, From Textbook
Week 4	PL/SQL ? Cursors and Exceptions (Explicit Cursors Exception Handling)	From Reference, From Textbook, From Reference
Week 5	Procedures and functions (Stored procedures, stored functions)	From Reference, From Textbook, From Reference
Week 6	Packages ? introduction (Packages Deploying Packages, dynamic SQL)	From Reference, From Textbook, From Reference

Week 7	Application Express (APEX) (Introducing Oracle Application Express Oracle Application Express 18: Creating an Application from a Spreadsheet Oracle Application Express 18: Create Application Wizard- Installing Sample Dataset Oracle Application Express 18:	From Reference , From Textbook , From Reference
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Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Review SQL DDL, DML concepts. [1SO1]	15%	
Write and execute basic PL/SQL code including selection, repetition, and cursors. (35%) [1SO2]	35%	
Write and execute advanced PL/SQL code including exception handling, procedures, functions and triggers. (30%) [1SO1, 1SO2]	30%	
Develop and use packages (10%) [1SO1, 1SO2]	10%	
Create different types of applications using Oracle APEX. (10%) [1SO1, 1SO2]	10%	

Relationship to Program Student Outcomes (Out of 100%)																
A	B	C	D	E	F	G	H	I	J	K	SO1	SO2	SO3	SO4	SO5	SO6
											40	60				

Evaluation	
Assessment Tool	Weight
First exam	20%
Second Exam	20%
Lab	10%
Final	40%
Quizzes	10%

Policy	
Course Objectives	The main objectives of the course are: 1. Learn the three components of SQL (Structured Query Language): DDL, DML and retrieval (SELECT) (15%) 2. Learn how to assign privileges and access rights using SQL-DCL (Data Control Language) (5%) 3. Learn the basics of PL/SQL. (10%) 4. Learn Selection in PL/SQL. (10%) 5. Learn Repetition in PL/SQL. (15%) 6. Learn implicit and explicit cursors in PL/SQL. (10%) 7. Learn to handle Exceptions using PL/SQL. (10%) 8. Learn to create procedures, functions and triggers using PL/SQL. (10%) 9. Learn creating Oracle Forms. (15%)

Teaching & Learning Methods	Teaching & Learning Methods 1- Class lectures, lecture notes, and quizzes are designed to achieve the course objectives. 2- You should read the assigned chapters before class, complete assignments on time, participate in class discussions among other things to understand the material. You should ask questions, whether in class or during office hours. 3- You are responsible for all material covered in class. 4- If you have any concerns, please communicate them to the instructor in class, in office or by email.
Additional Notes	Makeup Exams: - In accordance with university regulations, i.e. students should bring a valid excuse authenticated through valid channels in JUST. Attendance: - Students are expected to attend all classes - If a student misses 20% of the classes, the student will be assigned a grade of 35, according to the rules of JUST. Code of Conduct: The assignments, quizzes, and exams need to be done individually. Copying of another student's work or code, even if changes are subsequently made, is inappropriate, and such work or code will not be accepted.

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