



Faculty: Information Technology	
Department: Computer Science	Program: Bachelor
Academic Year:	Semester:

Course Plan

First: Course Information

Course No.: 1501437	Course Title: Database Languages And Tools	Credit Hours: 3	Theoretical: 3	Practical: 0
Prerequisite No. and Title: - 1501222 Database Systems		Section No.:	Lecture Time:	
Level in JNQF	7			
Type Of Course:	<input type="checkbox"/> <i>Obligatory University Requirement</i> <input type="checkbox"/> <i>Elective University Requirement</i> <input type="checkbox"/> <i>Obligatory Faculty Requirement</i> <input type="checkbox"/> <i>Elective Faculty Requirement</i> <input checked="" type="checkbox"/> <i>Obligatory Specialization Requirement</i> <input type="checkbox"/> <i>Elective Specialization Requirement</i> <input type="checkbox"/> <i>Ancillary course</i>			
Type of Learning:	<input checked="" type="checkbox"/> <i>Face-to-Face Learning</i> <input type="checkbox"/> <i>Blended Learning (2 Face-to-Face + 1 Asynchronous)</i> <input type="checkbox"/> <i>Online Learning (2 Synchronous+ 1 Asynchronous)</i>			

Second: Instructor's Information

Course Coordinator					
Name:		Academic Rank:			
Office Number:	Extension Number:	Email:			
Course Instructor					
Name:		Academic Rank:			
Office Number:	Extension Number:	Email:			
Office Hours:	Sunday	Monday	Tuesday	Wednesday	Thursday

Third: Course Description

This course aims to provide students with the necessary skills to analyze business scenarios, design and create database objects using SQL. Oracle PL/SQL and developer are utilized to provide practical activities to cover project-based learning techniques to enable the students to develop and work with projects by design, implement, and demonstrate a database solution for a business.

Fourth: Course Objectives

1. Introducing the student to the fundamental concepts of oracle programming, including variables, data types, operators, and basic control flow structures.
2. Providing students with suitable skills for accessing and manipulating the Oracle database.
3. Developing an understanding of the internal structures and organization of an Oracle database.
4. Creating Oracle database objects, including user accounts, tables, views, indexes, and other objects necessary to support an application.
5. Dealing with the basic PL/SQL commands, including blocks, functions and procedures.

Fifth: Learning Outcomes

<i>Level descriptor according to (JNQF)</i>	<i>CILOs Code</i>	<i>CILOs</i> If any CLO will not be assessed in the course, mark NA.	<i>Associated PILOs Code</i> Choose one PILO for each CILO*	<i>Assessment method</i> Choose at least two methods
Knowledge	K1	Recognize the basic concepts of database, relational databases and the SQL programming language.	PK1	<ul style="list-style-type: none"> • Mid-term Exam • Final Exam
	K2	Identify oracle architecture and its components	PK1	<ul style="list-style-type: none"> • Mid-term Exam • Final Exam
	K3	Identify the different control structures and conditional statements in oracle.	PK1	<ul style="list-style-type: none"> • Final Exam
Skills	S1	Build and access a database by using a sample database schema.	PS1	<ul style="list-style-type: none"> • Mid-term Exam • Final Exam • Quizzes
	S2	Apply advanced SQL SELECT techniques using preliminary built-in functions in Oracle to customize output.	PS2	<ul style="list-style-type: none"> • Mid-term Exam • Final Exam • Quizzes
	S3	Illustrate the role of database users and features of database systems, and architecture of database systems.	PS3	<ul style="list-style-type: none"> • Final Exam • Quizzes
	S4	Construct the basic PL/SQL commands.	PS3	<ul style="list-style-type: none"> • Quizzes • Final Exam
	S5	Design and tune stored procedures and functions	PS3	<ul style="list-style-type: none"> • Final Exam • Quizzes
Competencies	C1	Develop effective communication skills needed for group collaboration	PC1	<ul style="list-style-type: none"> • Participation

*CILOs: Course Intended Learning Outcomes; PILOs: Program Intended Learning Outcomes; For each CILO, the PILO could be the same or different.

Sixth: Learning Resources

Main Reference:	<i>Enhanced Guide to 8i</i>		
Author: Michael Morrison and Joline Morrison	Issue No.:	Print:0619063246	Publication Year:2002
Additional Sources and Websites:	<i>Preston Zhang, "Practical Guide to Oracle SQL,T-SQL and MySQL", CRC Press, Taylor & Francis Group, 2018</i>		
Teaching Type:	<input type="checkbox"/> Classroom <input checked="" type="checkbox"/> Laboratory <input type="checkbox"/> Workshop <input checked="" type="checkbox"/> MS Teams <input checked="" type="checkbox"/> Moodle		

Seventh: Course Structure

Week	Intended Teaching Outcomes (ILOs)	Topics	Teaching Procedures*	Teaching Methods **	References***
1	K1, K2	Course Syllabus discussion, Introduction to database and database relational model and Data Types of SQL	Face-to-Face	Lecture, In class Questions	Course Syllabus plane & Chapter 1 (Part 1_1)
	K2	List the main database problems, Understand Oracle architecture and components.			Chapter 1 (Part 1_2)
2	K1, K2, S1	Write DML statements. (Insert Statement)	Face-to-Face	Lecture, In class, Examples, Questions	Chapter 1 (Part 1_2)
		Write DDL to implement table constraints.		Lecture, In class, students Applying Questions	Chapter 1 (Part 1_3)
3	K1, K2, S1, S2	Writing Basic SQL Statements	Face-to-Face	Lecture, In class and applying work Questions	Chapter 1 (Part 1_4)
		Restricting and Sorting Data			Chapter 2
4	K1, K2, S1, S2	Single Row Functions. Single Row Functions. Converting types	Face-to-Face	Lecture, In class Questions	Chapter 3
5	K1, K2, S1, S2	Single Row Functions. NVL and Decode	Face-to-Face	Lecture, Assignment, Lab work	Chapter 3
6	K1, K2, S1, S2	Using join statements	Face-to-Face	Lecture, In class Questions	Chapter 4
7	K1, K2, S1, S2	Using join statements	Face-to-Face	Lecture, In class Questions	Chapter 4
		Complex Queries, Aggregating Data Using Group Functions			Chapter 5
Midterm Exam					

Week	Intended Teaching Outcomes (ILOs)	Topics	Teaching Procedures*	Teaching Methods **	References***
8	K1, K2, S1, S2	Aggregating Data Using Group Functions	Face-to-Face	Lecture, In class Questions	Chapter 5
		Sub Query statements			Chapter 6
9	K1, K2, S1, S2	Using Sub-queries	Face-to-Face	Lecture, In class Questions	Chapter 6
10	K1, K2, S1, S2, S3	Producing Readable Output with SQL*Plus	Face-to-Face	Lecture, In class Questions	Chapter 8
		Manipulating Data			Chapter 9
11	K1, K2, S1, S2, S3	Creating and Managing Tables	Face-to-Face	Lecture, In class Questions	Chapter 10
		Grant and Revoke statements for permissions.			Chapter 14
12	K1, K2, K3, S1, S2, S3, S4	PL/SQL benefits, Declarations, Blocks and assignment statements	Face-to-Face	In class Questions Lecture, Assignment, Quiz Exam, Lab work	Chapter 16
13	K1, K2, K3, S1, S2, S3, S4	PL/SQL creating Anonymous Blocks, If statements, Loop Statements	Face-to-Face	In class Questions Lecture, Assignment, Quiz Exam, Lab work	Chapter 19
14	K1, K2, K3, S1, S2, S3, S4, S5	PL/SQL Named Blocks (Procedures, and Functions)	Face-to-Face	Lecture, In class Questions	Chapter 17
Final Exam					

*Teaching procedures: (Face-to-Face, synchronous, asynchronous).

** Teaching methods: (Lecture, video....).

*** Reference: (Pages of the book, recorded lecture, video....)

Eighth: Assessment Methods

Methods	Online Learning	Blended Learning	Face-To-Face Learning	Specific Course Output to be assessed								
				**If any CILO will not be assessed in the course, mark NA.								
				K1	K2	K3	S1	S2	S3	S4	S5	C1
First Exam												
Second Exam												
Mid-term Exam			35	✓	✓		✓	✓				
Participation			5									✓
Asynchronous Activities												
Quizzes			10				✓	✓	✓	✓	✓	
Assignments												
Group presentation												
Final Exam			50	✓	✓	✓	✓	✓	✓	✓	✓	
Total out of 100			100									

Ninth: Course Policies

- All course policies are applied to all teaching patterns (online, blended, and face-to-face Learning) as follows:
 - a. Punctuality.
 - b. Participation and interaction.
 - c. Attendance and exams.
- Academic integrity: (cheating and plagiarism are prohibited).

Approval	Name	Date	Signature
Head of Department			
Faculty Dean			