QF05/0408-4.0 E	Course Plan for Bachelor program - Study Plan Development and Updating Procedures/ Management Information Systems Department

Study plan No.	2021/2022		**University Specialization**		MIS
Course No.	0506323		**Course name**		Advanced Database Managements
Credit Hours	3		**Prerequisite/ Co-requisite**		0506221
Course type	☐ MANDATORY UNIVERSITY REQUIREMENT	☐ UNIVERSITY ELECTIVE REQUIREMENTS	☐ FACULTY MANDATORY REQUIREMENT	☐ Support course family requirements	✓Mandatory requirements ☐ Elective requirements
Teaching style	☐ **Full online learning**		☐ **Blended learning**		✓**Traditional learning**
Teaching model	☐ **1 Synchronous: 1 asynchronous**		☐ **1 face to face : 1 asynchronous**		✓**2 Traditional**

Faculty member and study divisions' information (to be filled in each semester by the subject instructor)

Name	Academic rank	Office No.	Phone No.	E-mail	
Division number	**Time**	**Place**	**Number of students**	**Teaching style**	**Approved model**

Brief description

This course provides full practical coverage of Oracle 10g relational database management system and applications development, including multi user database management system architectures, SQL commands, Forms Builder, Database Reports..

Learning resources

Course book information (Title, author, date of issue, publisher ... etc)	Thomas Connolly and Carolyn Begg, Database Systems: A practical Approach to design, Implementation and Management, 6th Edition, Pearson Education Limited, 2015.			
Supportive learning resources (Books, databases, periodicals, software, applications, others)	1- Kevin Loney, Oracle Database 11g, The Complete Reference, Oracle Press, 2008. 2- Rocky Conrad, Joline Morrison and Mike Morrison, Guide to Oracle 10g, course technology, Cambridge, MA, 2006.			
Supporting websites				
The physical environment for teaching	☐ Class room	✓labs	☐ Virtual educational platform	☐ Others
Necessary equipment and software	Oracle Database 10g Express Edition.			
Supporting people with special needs				
For technical support				

Course learning outcomes (S= *Skills, C= Competences K= Knowledge,)*

No.	Course learning outcomes	The associated program learning output code
	Knowledge	
K1	Demonstrate an understanding of the database systems.	**MK2**
K2	Explain and demonstrate an understanding of the client/server databases and the Oracle 10g relational database.	**MK1**
K3	Create database tables with constraints.	**MK3**
K4	Modify database tables.	**MK3**
K5	Being able to insert data into database tables.	**MK2**
	Skills	
S1	Knowing the SQL Queries process to Insert, Update, Delete, and View Data.	**MS2**
S2	Students' ability to write SQL queries to retrieve data from database table.	**MS2**
S3	Create SQL queries that perform calculations on retrieved data.	**MS1**
S4	Use SQL group functions to summarize retrieved data.	**MS1**
	Competences	
C1	Knowing the SQL* plus commands.	**MC2**
C2	Knowing the SQL* plus queries processes.	**MC2**
C3	Knowing the fundamentals of the PL/SQL programming language.	**MC1**

Mechanisms for direct evaluation of learning outcomes

Type of assessment / learning style	Fully electronic learning	Blended learning	Traditional Learning (Theory Learning)	Traditional Learning (Practical Learning)
Midterm exam		**30%**		
Participation / practical applications		**0**		
Asynchronous interactive activities		**30%**		
Final exam		**40%**		

Note 1: Asynchronous interactive activities are activities, tasks, projects, assignments, research, studies, projects, work within student groups ... etc, which the student carries out on his own, through the virtual platform without a direct encounter with the subject teacher.

Note 2: According to the Regulations of granting Master's degree at Al-Zaytoonah University of Jordan, 40% of final evaluation goes for the final exam, and 60% for the semester work (examinations, reports, research or any scientific activity assigned to the student).

Schedule of simultaneous / face-to-face encounters and their topics

Week	Subject	learning style*	Reference **
1	Introduction: - Database systems. - Relational Databases. - Database Design.	Lecture	
2	Client/ server Databases: - Client / server Database Management. - The oracle 10g client / server Database.	Lecture	
3	Creating Database Tables: - Introduction to SQL. - Oracle10g user Accounts. - Defining oracle 109 Database tables. - Oracle 109 Database.	Lecture	
4	Creating Database Tables with constraints: - Constraints. - Creating Database tables using SQL*plus.	Lecture	
5	Creating Database Tables: - Modifying Database tables. - Deleting Database tables.	Lecture	
6	Using SQL Queries to insert , update , Delete , and view Data: - Insert data into tables. - Creating transactions and committing new data	Lecture	
7	Using SQL Queries to insert , update , Delete , and view Data: - creating search conditions in SQL Queries. - updating and deleting existing table rows. - sequences - Databases object privileges.	Lecture	
8	Using SQL Queries to insert , update , Delete , and view Data: Retrieving data from single database -table. - Using calculations in SQL Queries. - Oracle 10g SQL Group function.	Lecture	
9	Using SQL Queries to insert , update , Delete , and view Data: - Joining Multiple tables.	Lecture	
10	Creating Nested Queries.	Lecture	
11	- Using set operators to combine query results.	Lecture	

	- creating and using database views.		
12	Fundamentals of PL / SQL programming language: - PL/SQL variables and data types. - PL/SQL program blocks.	Lecture	
13	Write and execute PL/SQL programs in SQL*Plus. Display output through PL/SQL programs	Lecture	
14	Executing a PL /SQL program in SQL* plus : - PL/SQL data conversion functions.	Lecture	
15	Manipulating character strings with PL/SQL.	Lecture	
16	Debugging PL/SQL programs	Lecture	

*** Learning styles: Lecture, flipped learning, learning through projects, learning through problem solving, participatory learning ... etc.**

**** Reference: Pages in a book, database, recorded lecture, content on the e-learning platform, video, website ... etc.**

Schedule of asynchronous interactive activities (in the case of e-learning and blended learning)

Week	Task / activity	Reference	Expected results
1	Knowing how to deal with Oracle 10g.		
2	Creating Database Tables.		
3	Creating Database Tables with constraints.		
4	Modifying Database tables		
5	Deleting Database tables.		
6	Insert data into tables.		
7	Creating transactions and committing new data.		
8	Creating search conditions in SQL queries.		
9	Updating and deleting existing table rows.		
10	Retrieving data from single database.		
11	Using calculations in SQL Queries.		
12	Using Oracle 10g SQL Group function.		
13	Joining Multiple tables.		
14	Creating and using database views.		
15	Creating Nested Queries.		
16	Executing a PL /SQL program in SQL* plus.		