Detailed Course Description - Course Plan Development and Updating Procedures/ Management Information System Department	QF05/0408-3.0E

Faculty	Business	Department	**Management Information System**
Course number	0506323	Course title	Advanced Database Management Systems
Number of credit hours	3	Pre-requisite/co-requisite	Database Management systems

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

	Course goals and learning outcomes
Goal 1	Learn and demonstrate an understanding of the database systems.
Learning outcomes	1.1 Knowing the databases systems. 1.2 Knowing relational database. 1.3 Knowing database design.
Goal 2	Learn and demonstrate an understanding of the client/server databases and the Oracle 10g relational database.
Learning outcomes	2.1 Understanding the client/server databases management. 2.2 Understanding the oracle 10g client/server database. 2.3 Knowing the differences between personal and client/server databases.
Goal 3	Create database tables with constraints.
Learning outcomes	3.1 Use Structured Query Language (SQL) commands to create tables. 3.2 Use Structured Query Language commands to create tables with constraints. 3.3 Use Structured Query Language commands to rename and drop tables.
Goal 4	Modify database tables.
Learning outcomes	4.1 Use Structured Query Language commands to modify tables. 4.2 Being able to delete database tables. 4.3 Being able to retrieve a set of the constraints.
Goal 5	Use SQL Queries to Insert, Update, Delete, and View Data.
Learning outcomes	5.1 Being able to insert data into database tables. 5.2 Updating and deleting database records.. 5.3 Creating and using sequences to generate surrogate key values.
Goal 6	Ability to write SQL queries to retrieve data from database table.
Learning outcomes	6.1 Writing SQL queries to retrieve data from a single database table. 6.2 Learn how to create SQL queries that perform calculations on retrieved data. 6.3 Learn how to use SQL group functions to summarize retrieved data.
Goal 7	Joining Multiple tables.
Learning outcomes	7.1 Creating SQL queries that join multiple tables. 7.2 Creating nested SQL queries.
Goal 8	Describe the fundamentals of the PL/SQL programming language.
Learning outcomes	8.1 Writing PL/SQL programs in SQL*Plus. 8.2 Executing PL/SQL programs in SQL*Plus. 8.3 Displaying output through PL/SQL programs. 8.4 Debugging PL/SQL programs.
Textbook	Rocky Conrad, Joline Morrison and Mik Morrison , Guide to Oracle 10g, course

	technology ,Cambridge ,MA, 2006 .
Supplementary references	1-Thomas Connolly and Carolyn Begg , Database Systems : A practical Approach to design , Implementation and Management, 5th Edition , Addison-Wesley , Harlow, England ,2010. 2- Oracle 8, A Beginner's Guide, Oracle press.

Course timeline				
Week	**Number of hours**	**Course topics**	**Pages (textbook)**	**Notes**
01	**1** **1** **1**	Introduction: - Database systems. - Relational Databases. - Database Design.		
02	**1** **1** **1**	Client/ server Databases: - Client / server Database Management. - The oracle 10g client / server Database.		
03	**1** **1** **1**	Creating Database Tables: - Introduction to SQL. - Oracle10g user Accounts. - Defining oracle 109 Database tables. - Oracle 109 Database.		
04	**1** **1** **1**	Creating Database Tables with constraints: - Constraints. - Creating Database tables using SQL*plus.		
05	**1** **1** **1**	Creating Database Tables: - Modifying Database tables. - Deleting Database tables.		
06	**1** **1** **1**	Using SQL Queries to insert , update , Delete , and view Data: - Insert ivy Data into tables. - Creative Transactions and committing new data		
07	**1** **1** **1**	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.		
08	**1** **1** **1**	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.		
09	**1** **1**	Using SQL Queries to insert , update , Delete , and view Data:		

	1	- Joining Multiple tables.		
10	1 1 1	Greeting Nested Queries.		
11	1 1 1	- Using set operators to combine query results. - creating and using database views.		
12	1 1 1	Fundamentals of PL / SQL programming language: - PL/SQL variables and data types. - PL/SQL program blocks.		
13	1 1 1	Write and execute PL/SQL programs in SQL*Plus. Display output through PL/SQL programs		
14	1 1 1	Executing a PL /SQL program in SQL* plus : - PL/SQL data conversion functions.		
15	1 1 1	Manipulating character strings with PL/SQL .		
16		Debugging PL/SQL programs		

Theoretical course evaluation methods and weight	Participation = 10% First exam 20% Second exam 20% Final exam 50%	**Practical (clinical) course evaluation methods**	Semester students' work = 50% (Reports, research, quizzes, etc.) Final exam = 50%

Approved by head of department		**Date of approval**	

Extra information (to be updated every semester by corresponding faculty member)

Name of teacher	Dr. Qeethara La-Shayea	Office Number	**260**
Phone number (extension)	142	Email	drqeethara@zuj.edu.jo
Office hours	9-10 9:30:10:30		