

<b>Detailed Course Description - Course Plan Development and Updating Procedures/ Computer Information Systems Department</b>	<b>QF01/0408-3.0E</b>
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Faculty	Faculty of Science And Information Technology	Department	Computer Information Systems
Course Number	0113325	Course Title	<b>Database Management System</b>
Number of Credit Hours	3	Pre-Requisite/Co-Requisite	Databases

### Brief Course Description

SQL, data definition language DDL, data manipulation languages DML, and data control language DCL, PL/SQL, Control Structure statements, Functions, Procedures, Packages and Triggers. Records and tables, Oracle developer Forms include Triggers and LOVs, property palette, Writing PL/SQL in trigger, Item types, canvas types. Different Style of Reports. Practical applications and Projects.

Course Goals and Learning Outcomes	
<b>Goal 1</b>	<b>Building the Database using Data Definition Language, Data Control Language and DML.</b>
Learning Outcomes	<b>1.1</b> Enhance the knowledge and understanding of Database analysis and design. <b>1.2</b> Understand and apply the Data Dictionary. <b>1.3</b> Create and understand the application of user rolls, privileges, and the security of the database.
<b>Goal 2</b>	<b>To write and execute programs using PL/SQL.</b>
Learning Outcomes	<b>2.1</b> Use the Relational model and how it is supported by SQL and PL/SQL. <b>2.2</b> Enhance the knowledge of the processes of Database Development and Administration using SQL and PL/SQL <b>2.3</b> Solve Database problems using Oracle 12c SQL and PL/SQL. This will include the use of Procedures, Functions, Packages, and Triggers. <b>2.4</b> Handle runtime errors
<b>Goal 3</b>	<b>Using Forms Builder to start our application development.</b>
Learning Outcomes	<b>3.1</b> Create and run simple forms and add functionality to a form by writing PL/SQL code. <b>3.2</b> Create multiple-form applications. And using menu. <b>3.3</b> Display form modules in multiple windows.
<b>Goal 4</b>	<b>Use Reports Builder and design different styles of reports</b>
Learning Outcomes	<b>4.1</b> Create and run simple reports. <b>4.2</b> Create and run different styles of reports with forms
<b>Textbook</b>	<ol style="list-style-type: none"> <li>1. Oracle Database 12c The Complete Reference (Oracle Press) 1st Edition by Bob Bryla , Kevin Loney ,2014, McGraw-Hill.</li> <li>2. Oracle Forms and Reports 12c Documentation</li> </ol>
<b>Supplementary References</b>	<ol style="list-style-type: none"> <li>1. Oracle SQL Developer , 2016,by Ajith Narayanan , Packet Publishing.</li> <li>2. Advanced Oracle PL/SQL Developer's Guide - Second Edition, 2016 by Saurabh K. Gupta . Packet Publishing.</li> <li>3. Murach's Oracle SQL and PL/SQL for Developers, 2nd Edition, by Joel Murach, 2014. Mike Murach and Associates, Inc.</li> </ol>

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4. Oracle PL/SQL Language Pocket Reference: A Guide to Oracle's PL/SQL Language Fundamentals 5th Edition, by Steven Feuerstein , Bill Pribyl , Chip Dawes ,2015, O'Reilly Media, Inc
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### Course Timeline

Week	Number of Hours	Course Topics	Pages (Textbook)	Notes
01	1 1 1	<b>SQL. Review DDL Commands, Database objects.</b> – DML: insert, delete, update – Data Control Language – Oracle data dictionary	77-102 275-292	
02	1 1 1	<b>SQL. &amp; SQL plus</b> – All Select Statements. – Sub queries <b>Single-Value Functions.</b> – Character & Numeric & Date Functions	105-239	
03	1 1 1	<b>PL/SQL.</b> – Introduction to PL/SQL – Declaring variables and assigning values. – Conditional logic – Case Statements	545-567 295-308	
04	1 1 1	<b>PL/SQL:</b> – Loops – Cursors – Exception handling	567-580	
05	1 1 1	<b>PL/SQL:</b> – Triggers. – Types of Triggers – Trigger Syntax	581-603	
06	1 1 1	<b>PL/SQL</b> – Function. – Procedures. – Packages	603-624	
07	1 1 1	<b>Forms Builder:</b> – Forms Compiler and Forms runtime – Query builder – Data Block Form	Oracle Forms 12c Documentation	Text2
08	1 1 1	– Object navigator. – Layout editors tools – Property palette	Oracle Forms 12c Documentation	Text2
09	1 1	– Writing code with Developer. – Procedure Builder and PL/SQL.	Oracle Forms 12c	Text2

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	1	- Triggers	Documentation	
10	1	- Using Graphical elements in Forms.	Oracle Forms 12c	Text2
	1	- The form runtime environments	Documentation	
	1	- Creating a form manually.		
11	1	- Item types	Oracle Forms 12c	Text2
	1	- List items, check box, radio buttons	Documentation	
	1	- LOVs, Canvases.		
12	1	- Developer Application design. Application interface.	Oracle Forms 12c	Text2
	1	- Database object creating.	Documentation	
	1	- Creating the Database schema.		
13	1	- Menu Editors	Oracle Forms 12c	Text2
	1	- Library editor	Documentation	
	1	- Using Property palette		
14	1	- Form search types	Oracle Forms 12c	Text2
	1	- Multiple Tables form (master-detail)	Documentation	
	1	- More Triggers.		
15	1	<b>Reports Builder.</b>	Oracle report 12c	Text2
	1	- Tabular reports, Form like report.	Documentation	
	1	- Group left and group above report, Matrix report - Report views		
16	1	<b>Projects Discussion</b>		
	1	<b>Final Exam</b>		
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<b>Theoretical Course Evaluation Methods and Weight</b>	Participation = 10% First Exam 20% Second Exam 20% Final Exam 50%	<b>Practical (Clinical) Course Evaluation Methods</b>	Semester Students' Work = 50% (Reports, Research, Quizzes, Etc.) Final Exam = 50%
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<b>Approved by Head of Department</b>		<b>Date of Approval</b>	
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Extra information (to be updated every semester by corresponding faculty member)

<b>Name of Teacher</b>		Office Number	
Phone Number (Extension)		Email	<a href="mailto:_____@zuj.edu.jo">_____@zuj.edu.jo</a>
Office Hours			