" حيث تصبح الرؤية واقعاً" "When Vision Becomes Reality"		" عراقة وجودة" **Tradition and Quality**

Detailed Course Description - Course Plan Development and Updating Procedures/ Department of Software Engineering	QF01/0408-3.0E

Faculty	Faculty Of Science And Information Technology	Department	Software Engineering
Course number	0114483	Course title	**Selected Topics in S.E.2**
Number of credit hours	3	Pre-requisite/co-requisite	0114341

Brief course description

This course is aimed at developers who want to build Java EE applications using Oracle ADF. Learn to use Oracle JDeveloper 11g Release 1 Patch Set 1 to build, test and deploy an end-to-end web application. Simplify application development in your organization to increase productivity. Become more efficient at building Java EE applications using Oracle ADF (innovative yet mature Java EE development framework) and deploy an end-to-end web application

	Course goals and learning outcomes
Goal 1	Build end-to-end web applications.
Learning outcomes	1.1 Students learn how the end-to end web application work
Goal 2	Develop Java EE components with Oracle ADF.
Learning outcomes	2.1 Student can use JEE components 2.2 Students can use the Oracle ADF software IDE
Goal 3	Build rich user interfaces with ADF Faces
Learning outcomes	3.1 Student can crate and build GUI using the ADF software
Goal 4	Use the new capabilities of Oracle JDeveloper 11g Release 1 Patch Set 1.
Learning outcomes	4.1 Student can use the Oracle JDeveloper . 4.2 Student can apply the GUI application using the JDeveloper and ADF and JEE components
Textbook	1.- Sten Vesterli, Oracle ADF Survival Guide: Mastering the Application Development Framework, Publisher: Apress; 1st ed. edition (2017)
Supplementary references	1- Sten E. Vesterli, Oracle ADF Enterprise Application Development – Made Simple : Packt Publishing; 2nd Revised, Second Edition, 2014 2- Amr Gawish, Oracle ADF Faces Cookbook, Publisher: Packt Publishing - ebooks Account (2014)

Course timeline				
Week	**Number of hours**	**Course topics**	**Pages (textbook)**	**Notes**
01	1 1	Introduction to Fusion and ADF Describing Fusion architecture		

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	1	Explaining how ADF fits into the Fusion architecture (Describing the ADF technology stack (MVC		
02	1 1 1	Getting Started with JDeveloper Listing JDeveloper benefits for application development Using the features of the JDeveloper IDE Defining IDE preferences Creating applications, projects, and connections in JDeveloper		
03	1 1 1	Building a Data Model with ADF Business Components Introducing ADF Business Components Creating Business Components from tables Testing the data model		
04	1 1 1	Querying and Persisting Data Using view objects Using entity objects to persist data Synchronizing entity objects with database table changes		
05	1 1 1	Creating associations Creating updateable view objects Creating master-detail relationships Refactoring		
06	1 1 1	**Exercises and Project discussion** **Review of previous chapters** **First Exam (20 %)**		
07	1 1 1	Exposing Data Creating application modules Using master-detail view objects in application modules Managing Business Components transactions Abstracting business services with ADF Model		
08	1 1 1	Declaratively Customizing Data Services Internationalizing the data model Editing business components Modifying default behavior of entity objects Changing the locking behavior of an application module		
09	1 1 1	Programmatically Customizing Data Services Generating Java classes Programmatically modifying the behavior of entity objects Programmatically modifying the behavior of view		

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		objects Adding service methods to an application module Using client APIs		
10	1 1 1	Create project case study Create project components Build the GUI and ADF		
11	1 1 1	Validating User Input Understanding validation options: Database, Data Model, or UI Triggering validation execution Handling validation errors Using Groovy expressions in validation Using programmatic validation		
12	1 1 1	**Exercises** **Review of previous chapters** **Second exam (20%)**		
13	1 1 1	Troubleshooting ADF BC Applications Troubleshooting the business service Troubleshooting the UI Using logging and diagnostics Using the JDeveloper debugger **Understanding UI Technologies** Describing the use of Web browsers and HTML Describing the function of Servlets and JSPs Defining JavaServer Faces Explaining the JSF component architecture and JSF component types Explaining the purpose of backing beans and managed beans Describing the JSF life cycle Explaining how ADF Faces augments the JSF life cycle		
14	1 1 1	**Understanding UI Technologies** Describing the use of Web browsers and HTML Describing the function of Servlets and JSPs Defining JavaServer Faces Explaining the JSF component architecture and JSF component types Explaining the purpose of backing beans and managed beans Describing the JSF life cycle Explaining how ADF Faces augments the JSF life cycle		
15	1 1 1	Review of previous chapters Project presentation		
16	1 1 1	Final Exam (50 %)		

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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		Office Number	**118**
Phone number (extension)		Email	
Office hours			