

ATTACHMENT 5.

Kingdom of Saudi Arabia
The National Commission for Academic Accreditation &
Assessment

T6. Course Specifications
(CS)

Course Specifications

Institution Umm Al Qura University	Date 14/4/2016
College/Department College of Computers and Information Systems	

A. Course Identification and General Information

1. Course title and code: 14014302-3 Database II			
2. Credit hours: 3			
3. Program(s) in which the course is offered. Computer Science			
4. Name of faculty member responsible for the course Shady Elsaid			
5. Level/year at which this course is offered 4th year / (level 9 or 10)			
6. Pre-requisites for this course (if any) 14012301-3 Database I			
7. Co-requisites for this course (if any)			
8. Location if not on main campus Al-Abidia, Al-Zaher			
9. Mode of Instruction (mark all that apply)			
a. traditional classroom	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="100%"/>
b. blended (traditional and online)	<input type="checkbox"/>	What percentage?	<input type="text"/>
c. e-learning	<input type="checkbox"/>	What percentage?	<input type="text"/>
d. correspondence	<input type="checkbox"/>	What percentage?	<input type="text"/>
f. other	<input type="checkbox"/>	What percentage?	<input type="text"/>
Comments:			

B Objectives

<p>1. What is the main purpose for this course?</p> <ul style="list-style-type: none"> • Design and execute advanced queries. • Design application using EER model. • Describe components of database management systems. • Explain how queries are processed and simple query optimization techniques. • Define concepts like transaction processing, backup and recovery. • Understand advanced data modelling e.g. object oriented, distributed database, XML, data warehousing and data mining and the supporting theoretical foundation.
<p>2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)</p> <p>Discussion sessions should be held to find out newest updates regarding topics being instructed.</p>

C. Course Description (Note: General description in the form used in Bulletin or handbook)

<p>Course Description:</p> <p>This course provides advanced database knowledge. It presents the basics of transactions, data mining and warehousing, query processing and optimization, database tuning, distributed and NoSQL databases</p>
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1. Topics to be Covered		
List of Topics	No. of Weeks	Contact hours
The Enhanced Entity-Relationship (EER) model	1	3
Transactions: failures, atomicity, consistency, isolation, durability	2	6
Query Processing and Query Optimization Techniques	2	6
Database Backup and Recovery	2	6
Object and Object-Relational Databases.	1	3
XML for Semi-Structured Data.	1	3
Distributed Databases (DDB).	2	6
Database Security.	1	3
Distributed and NoSQL Databases	1	3
Data Mining and Warehousing	1	3

2. Course components (total contact hours and credits per semester):						
	Lecture	Tutorial	Laboratory or Studio	Practical	Other:	Total
Contact Hours	42					
Credit	3					

3. Additional private study/learning hours expected for students per week.	<input type="text"/>
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4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy			
On the table below are the five NQF Learning Domains, numbered in the left column.			
<p>First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). Second, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. Third, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)</p>			
Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Explain difference between ERD and EERD	Lecture	Homework/Quizzes/Exams
1.2	Explain advanced database topics like transaction control, OODB, distributed DB, etc.	Lecture	Homework/Quizzes/Exams
1.3	Explain usages of data mining and data warehousing	Lecture	Homework/Quizzes/Exams
2.0	Cognitive Skills		
2.1	Convert EER Model to a Relational Database Model	Lecture	Homework/Quizzes/Exams
2.2	Implements query optimization techniques	Lecture	Homework/Quizzes/Exams
3.0	Interpersonal Skills & Responsibility		
3.1	Explain state of the art topics regards advanced databases	Lecture	Presentation

4.0	Communication, Information Technology, Numerical
5.0	Psychomotor

5. Map course LOs with the program LOs. (Place course LO #s in the left column and program LO #s across the top.)

Course LOs #	Program Learning Outcomes (Use Program LO Code #s provided in the Program Specifications)											
	1.1	1.2	1.3	1.4	2.1	2.2	2.3	3.1	3.2	4.1	4.2	5.1
1.1	P											
1.2	P											
1.3	P			P								
2.1					P							
2.2			P									
3.1				P						P		

6. Schedule of Assessment Tasks for Students During the Semester

	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Homework or Quiz	5	10%
2	Homework or Quiz	7	10%
3	Midterm	8	30%
4	Presentation	14	10%
5	Final exam	16	40%

D. Student Academic Counseling and Support

<p>1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)</p> <p>6 office hours</p>
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E Learning Resources

1. List Required Textbooks Fundamentals of Database Systems By: Ramez Elmasri , Shamkant B. Navathe
2. List Essential References Materials (Journals, Reports, etc.)
3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)
4. List Electronic Materials, Web Sites, Facebook, Twitter, etc.
5. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) Classrooms
2. Computing resources (AV, data show, Smart Board, software, etc.) SQL Server (e.g. MS SQL Server, MySQL), data show
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching Questionnaire
2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department Questionnaire evaluation with respect to CLOs

3 Processes for Improvement of Teaching Continuous learning to be updated with modern teaching techniques
4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution) Remarking of samples of students' work with another staff member with respect to a model answer and marking scheme.
5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement. A staff member feedback after midterm and final exams

Name of Instructor: _____

Signature: _____ Date Report Completed: _____

Name of Course Instructor _____

Program Coordinator: _____

Signature: _____ Date Received: _____