



Course Specifications

Institution:	Majmaah University, College of Science at Az Zulfi
Academic Department :	Department of Computer Science and Information.
Programme :	Computer Science and Information Program
Course :	Database (CSI-314)
Course Coordinator :	Dr. Yaser Abdalla
Programme Coordinator :	Dr. Yousry Azzam
Course Specification Approved Date :	22./ 12 / 1435 H

A. Course Identification and General Information

1 - Course title	Database	Course Code:	CSI-314
2. Credit hours :	(3)		
3 - Program(s) in which the course is offered:		Computer Science and Information	
4 – Course Language :	English		
5 - Name of faculty member responsible for the course:		Dr. Yaser Abdalla	
6 - Level/year at which this course is offered :	3rd level		
7 - Pre-requisites for this course (if any) :	<ul style="list-style-type: none"> • Programming 1 (CSI 211) 		
8 - Co-requisites for this course (if any) :	<ul style="list-style-type: none"> • 		
9 - Location if not on main campus :	(.....)		
10 - Mode of Instruction (mark all that apply)			
A - Traditional classroom	<input checked="" type="checkbox"/>	What percentage?	80 %
B - Blended (traditional and online)	<input checked="" type="checkbox"/>	What percentage?	10 %
D - e-learning	<input type="checkbox"/>	What percentage? %
E - Correspondence	<input type="checkbox"/>	What percentage? %
F - Other	<input checked="" type="checkbox"/>	What percentage?	10 %
Comments :		

B Objectives

What is the main purpose for this course?

The main objective of this course is to provide students with the theoretical background and practical experience relating to the design and implementation of relational databases. The main objectives of the course are:

1. Learn the fundamental database concepts and systems methodologies to design database systems. (10%)
2. Understand data modeling using ER Model and EER Model and the mappings to relational model (25%)
3. Understand relational database model and database creation using the specified DBMS in DB lab (25%)
4. Understand Relational Algebra and Structured Query Language (25%)
5. Understand functional dependencies and database normalization (15%)

Briefly describe any plans for developing and improving the course that are being implemented :

1. Awareness of career opportunities in computer organizations by Building a complete database system suitable to Saudi companies.
2. Use ADO asp.net to build database.
3. Using MySql with apache server

C. Course Description

1. Topics to be covered

List of Topics	No. of Weeks	Contact Hours
Databases and Database Users (Sections 1, 2, 4, 5, 6)	1	3
Database System Concepts and Architecture (Sections 1, 2, 3, 5, 6)	2	6
Data Modeling Using the Entity-Relationship Model (Sections 1-7)	2	6
The Relational Data Model and Relational Database Constraints	2	6
ER-to-Relational Mappings	2	6
The Relational Algebra (Sections 1-5)	2	6
SQL - The Relational Database Standard (Sections 1-6)	2	6
Functional Dependencies and Normalization for Relational Databases	1	3
Databases and Database Users (Sections 1, 2, 4, 5, 6)	1	3

2. Course components (total contact hours and credits per semester):

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	30	-	30	-	-	60
Credit	30	-	15	-	-	45

3. Additional private study/learning hours expected for students per week.

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4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Be able to discuss/ explain the importance of database systems.	<ul style="list-style-type: none"> • Developing basic communication • Ability through short and varied situated discourse. • Lecturing • Team work • Exercises 	<ul style="list-style-type: none"> • Homework. • Group Discussion • Presentation • Mid-term exam • Final test
1.2	Be able to discuss/ explain the difference between file management and database.		
1.3	Be able to design a suitable database components and environments.		
1.4	Be able to formulate the major constructs of relational DB language SQL.		
2.0	Cognitive Skills		
2.1	Employ analytical skills as appropriate during database design and manipulation process.	<ul style="list-style-type: none"> • Problem solving • Class discussion • Presentation • Individual meeting with the instructor (encouraging students to discuss different topics outside the classroom) 	<ul style="list-style-type: none"> • Class Participation • Presentation • Essay Questions • Research topics
2.2	Design and implement practical database system. In particular, be able to discuss, explain, apply the relational model and mappings from conceptual designs to particular normalizations.		
2.3	Identify a range of DB-solutions and critically evaluate them and justify proposed design and development solutions.		
2.4	Analyze a wide range of database design issues and provide solutions through suitable design, structures, diagrams, and other appropriate design methods.		
2.5	Be able to apply and evaluate suitable database security and integrity levels.		
3.0	Interpersonal Skills & Responsibility		
3.1	Work in a group and learn time management.	<ul style="list-style-type: none"> • Discussion with students • Making students aware about time management in completing their assignments. • Counsel students how to make a good presentation in Database and DBMS • Encourage students to help each 	<ul style="list-style-type: none"> • Respecting deadlines. • Showing active class participation. • Helping other students to understand tasks in the class. • Giving clear and logical arguments • Performing seriously on midterms and final exams
3.2	Learn how to search for information through library and internet.		
3.3	Present a short report in a written form and orally using appropriate scientific language		

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
		other.	
4.0	Communication, Information Technology, Numerical		
4.1	Communicate with teacher, ask questions, solve problems, and use computers.	<ul style="list-style-type: none"> Exercises Problem solving oral quizzes Essay questions Encourage students to Implement a real world computer DB information system.	<ul style="list-style-type: none"> Write reports Exercises related to specific topics
4.2	Illustrate and use the (DBMSs) effectively..		
4.3	Discuss questions during the lecture, work in groups, communicate with each other and with me electronically, and periodically visit the sites I recommended.		
4.4	Students use information technology in the classroom		
5.0	Psychomotor: (N/A)		

5. Schedule of Assessment Tasks for Students During the Semester:

	Assessment task	Week Due	Proportion of Total Assessment
1	First written mid-term exam	6	15%
2	Second written mid-term exam	12	15%
3	Presentation, class activities, and group discussion	Every week	10%
4	Homework assignments	After Every chapter	10%
5	Implementation of selected topics	Every two weeks	10%
6	Final written exam	16	40%
7	Total		100%

D. Student Academic Counseling and Support

Office hours: Sun: 10-12, Mon. 10-12, Wed. 10-12

Office call: Sun. 12-1 and Wed 12-1

Email: y.salem@mu.edu.sa

E. Learning Resources

<p>1. List Required Textbooks :</p> <ul style="list-style-type: none"> • <i>Ramez Elmasri, Shamkant B. Navathe, Fundamentals of DATABASE SYSTEMS, 6th edition, Pearson/Addison Wesley, Published Date: Dec 1, 2009</i>
<p>2. List Essential References Materials :</p> <ul style="list-style-type: none"> • <i>Jeffrey A. Hoffer, Mary Prescott, Fred McFadden, Modern Database Systems, 7th Ed., Prentice Hall</i>
<p>3. List Recommended Textbooks and Reference Material :</p> <ul style="list-style-type: none"> • <i>Date, CJ, An introduction to database systems, 8th edn, Pearson/Addison-Wesley, Boston 2004.</i> • <i>Ramakrishnan, R & Gehrke, J 2003, Database management systems, 3rd edn, McGraw-Hill, Boston</i>
<p>4. List Electronic Materials :</p> <ul style="list-style-type: none"> • http://www.aw-bc.com/elmasri
<p>5. Other learning material :</p> <ul style="list-style-type: none"> • <i>Oracle database , MS- Access</i>

F. Facilities Required

<p>1. Accommodation</p> <ul style="list-style-type: none"> • <i>Classroom and Lab, as those that are available at college of science at Az-Zulfi.</i>
<p>2. Computing resources</p> <ul style="list-style-type: none"> • <i>Education console</i> • <i>Smart Board</i>
<p>3. Other resources</p> <ul style="list-style-type: none"> • <i>None.</i>

G Course Evaluation and Improvement Processes

<p>1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching:</p> <ul style="list-style-type: none"> • <i>Questionnaires (course evaluation) filed by the students and it is electronically organized by the university.</i> • <i>Student-faculty management meetings.</i>
<p>2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor :</p> <ul style="list-style-type: none"> • <i>Discussion among the staff members teaching the course</i> • <i>Departmental internal review of the course.</i>
<p>3 Processes for Improvement of Teaching :</p> <ul style="list-style-type: none"> • <i>Periodical departmental revision of teaching methods.</i> • <i>Monitoring of teaching activities by senior faculty members.</i> • <i>Training courses.</i>

4. Processes for Verifying Standards of Student Achievement

- It is planned to:-
- Check marking of a sample of student work by an independent faculty member.
- Exchange periodically, and remark a sample of assignments with a faculty members from one of the distinguished institute.

5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement :

- Assessment and evaluation of the level of achieving the course outcomes through a continuous improvement process (part of a quality assurance system established by the university)
- Consequently, actions are to be taken to improve the course delivery when necessary.
- Review of course objectives, outcomes and curriculum at about 2 years span

Course Specification Approved

Department Official Meeting No (6) Date **22 / 12 / 1435 H**

Course's Coordinator

Name : Dr. Yaser Abdalla

Signature :

Date : / ... / H

Department Head

Name : Dr. Yosry Azzam

Signature :

Date : / ... / H

