

ATTACHMENT 5.

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

**Course Specifications
(CS)**

Database Systems Lab

(COMP 2312)

1439-1440

Second Semester

Course Specifications

Institution	King Saud University	Date: 6/01/2019
College/Department: Community College / Computer Science Department		

A. Course Identification and General Information

1. Course title and code: Database Systems Lab, COMP 2312			
2. Credit hours: 3 (4 Hours Lab = 2 credit hrs.) + (1 Hour Lecture)			
3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs) Computer Science Program			
4. Name of faculty member responsible for the course Mr. Sulieman M. A. Khudruj			
5. Level/year at which this course is offered: Level – 4			
6. Pre-requisites for this course (if any) COMP 1211 Fundamentals of Database Systems			
7. Co-requisites for this course (if any) None			
8. Location if not on main campus Community College			
9. Mode of Instruction (mark all that apply)			
a. traditional classroom	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="20%"/>
b. blended (traditional and online)	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="50%"/>
c. e-learning	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="30%"/>
d. correspondence	<input type="checkbox"/>	What percentage?	<input type="text"/>
f. other	<input type="checkbox"/>	What percentage?	<input type="text"/>
Comments: None			

B Objectives

1. What is the main purpose for this course?

The Objective of this course is to introduce all required programming skills that is necessary to build database applications and applying the knowledge obtained from COMP1211 in analysis, design and implementation of a real database project.

LAB

Microsoft SQL Server and VB.NET is available

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)

- *We should also provide information of other available databases in the industry.*

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

Course Description:

This course covers SQL-SERVER databases and usage of Vb.net to access database. In this course students will learn storing, retrieving, and manipulating data in relational databases, and how to use VB.NET and SQL-SERVER to develop Applications.

The following topics will be covered:

- **Overview of Database and ER-Diagram.**
- **Introduction to SQL_SERVER, types of SQL commands, and data types.**
- **Data Definition Language.**
- **Data Manipulation Language.**
- **Data Control Language.**
- **Using Constraints.**
- **Advanced statements using DML.**
- **Stored SQL Procedure.**
- **SQL-Server Functions and using group by, having key word etc.**
- **Retrieve data from more than one tables using different types of join statement in SQL-SERVER.**
- **Accessing SQL-SERVER database from VB.NET application.**
- **Using SQL commands in VB.NET to access SQL-Server Database.**
- **Displaying dynamic contents in VB.NET.**
- **Using Crystal report with VB.NET and SQL-Server.**
- **Developing complete project using SQL-Server, VB.NET and Crystal report.**

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact hours
• Overview of Database and ER-Diagram.	1	5
• Introduction to SQL_SERVER, Types of Commands, and Data Types.	1	5
• Data Manipulation Language as (Create, alter, drop).	1	5
• Using Constraints as (primary key, foreign key, not null, check, and unique)	1	5
• Data Manipulation Language as (select, select into, insert, update, and delete).	2	10
• Data Control Language as (grant, revoke, and deny)	1	5
• Advanced statements using DML.	1	5
• SQL-Server Functions and using group by key word, and having key word.	1	5
• Retrieve data from more than one tables using different types of join statement in SQL-SERVER as (INNER Join, Outer Join, Cross Join, and Self Join), Stored SQL Procedure.	1	5
• Accessing SQL-SERVER database from VB.NET application.	1	5
• Using SQL commands in VB.NET to access SQL-Server Database.	1	5
• Displaying dynamic contents in VB.NET	2	10
• Developing complete project using SQL-Server, VB.NET and Crystal report.	1	5

2. Course components (total contact hours and credits per semester):						
	Lecture	Tutorial	Laboratory or Studio	Practical	Other:	Total
Contact Hours	15			60		75
Credit	1			2		3

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

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- * *Reading carefully the topics in the textbook or reference book.*
- * *Browsing the recommended websites.*
- * *Discussing the course topics with the instructor in his office hours.*
- * *Watching the video lectures of other instructors who presented related topics.*

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.

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.)

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	<ul style="list-style-type: none"> • <i>Demonstrate techniques and methods for database design.</i> 	<ul style="list-style-type: none"> • <i>Lecturing</i> • <i>Focus on Practical work.</i> • <i>Individual guidance.</i> 	<ul style="list-style-type: none"> • <i>Two Major exams, lab exam, project work and final exam in the whole course.</i> • <i>Five quizzes</i> • <i>Homework</i> • <i>Classwork</i>
1.2	<ul style="list-style-type: none"> • <i>Demonstrate Creating database, Creating tables, retrieving data, updating data, inserting data, deleting data, sorting and filtering data, summarizing data, grouping data, using sub-queries, and joining tables.</i> 		
1.3	<ul style="list-style-type: none"> • <i>Illustrating the Steps to connect VB.net with SQL Server, and the ability to use DDL, DML, and DCL inside VB.net.</i> 		
2.0	Cognitive Skills		
2.1	<ul style="list-style-type: none"> • <i>Design and Development of relational database system and identifying their essential parts.</i> 	<ul style="list-style-type: none"> • <i>Lecturing.</i> 	

2.2	<ul style="list-style-type: none"> Design and Development Complete Desktop Applications using VB.net and SQL-Server 	<ul style="list-style-type: none"> Focus on Practical side. Work Together as a team. 	<ul style="list-style-type: none"> Lab Work Evaluation. Projects evaluation. Quizzes. Participations marks.
3.0	Interpersonal Skills & Responsibility		
3.1	<ul style="list-style-type: none"> Motivating students to enter discussions to resolve some problems. 	<ul style="list-style-type: none"> Group discussion with students. Presentations. 	<ul style="list-style-type: none"> Evaluating the student's participations. Group evaluation for student lab works.
3.2	<ul style="list-style-type: none"> Apply the value of ethics through lectures. 		
3.3	<ul style="list-style-type: none"> Demonstrate teamwork skills to get the work done. 		
4.0	Communication, Information Technology, Numerical		
4.1	<ul style="list-style-type: none"> Strengthen the relationship between each student and his teacher. 	<ul style="list-style-type: none"> Assignments Presentations Question and answer sessions LMS 	<ul style="list-style-type: none"> Through the practical assignments given to them Quizzes
4.2	<ul style="list-style-type: none"> Strengthen the relationship among students. 	<ul style="list-style-type: none"> Formation of groups Debate on a given topic 	<ul style="list-style-type: none"> Group discussion and work
5.0	Psychomotor		
5.1	N/A	N/A	N/A

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) See Attached paper for Program LO						
	1.1	2.1	2.2	2.3	3.1	3.2	4.1
1.1	√						
1.2	√						
1.3	√						
2.1		√	√				
2.2			√	√			
3.1					√		
3.2						√	
3.3					√		
4.1							√
4.2							√

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	<i>Quiz 1</i>	<i>2nd</i>	<i>1%</i>
2	<i>Quiz 2</i>	<i>4th</i>	<i>1%</i>
3	<i>Quiz 3</i>	<i>5th</i>	<i>1%</i>
4	<i>Quiz 4</i>	<i>7th</i>	<i>1%</i>
5	<i>Quiz 5</i>	<i>8th</i>	<i>1%</i>
6	<i>Homework 1</i>	<i>6th</i>	<i>2.5%</i>
7	<i>Homework 2</i>	<i>11th</i>	<i>2.5%</i>
8	<i>Lab Exam</i>	<i>13th</i>	<i>10%</i>
9	<i>Major Exam – I</i>	<i>8th</i>	<i>15%</i>
10	<i>Major Exam – II</i>	<i>12th</i>	<i>15%</i>
11	<i>Project Work</i>	<i>13th</i>	<i>10%</i>
12	<i>Final Exam</i>	<i>16th</i>	<i>40%</i>

D. Student Academic Counseling and Support

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)

- *The faculty member is available in the office for at least 5 hrs. per week for any student's consultations and provide academic advice apart from the time he is available in the class contact hours.*
- *If they find any problem on a particular topic I arrange extra classes.*
- *They can even communicate via internet through LMS and E-mails.*

E Learning Resources

1. List Required Textbooks

- *Microsoft SQL Server: A Beginner's Guide, Sixth Edition.*
- *Visual Basic.NET Database Programming 1st Edition*

2. List Essential References Materials (Journals, Reports, etc.)

- *SQL Server Developer's Guide*
- *Practical Database Programming with Visual Basic.NET, 2012 , by Ying Bai*

3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)

- *Fundamentals of Database Systems, Fourth Edition (or latest), Ramez Elmasri, Shamkant Navathe.*
- *LMS*

4. List Electronic Materials, Web Sites, Facebook, Twitter, etc.

<http://lms.ksu.edu.sa>

5. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

- *Lecture Notes and presentations provided by the teacher.*
- *Lab assignments are provided by teacher.*

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.) <i>Computer Lab with at least 24 PCs connected through the network and a PC for the tutor for delivering lectures and presentations.</i>
2. Computing resources (AV, data show, Smart Board, software, etc.) <i>A PC for every student with SQL-SERVER and VB.net. A Classroom having AV, data show, Smart Board.</i>
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list) <ul style="list-style-type: none">• <i>Latest hardware and Software.</i>

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching <ul style="list-style-type: none">• <i>Making a comparison between student results in different exams.</i>• <i>Making a comparison between student results in different semesters.</i>• <i>Students' opinion through questionnaires.</i>
2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department <ul style="list-style-type: none">• <i>Students' feedback every semester.</i>• <i>Effective supervision from the department head.</i>• <i>The instructor of the course must introduce a report about the course and this report must be added to the portfolio of the course at the end of every semester.</i>
3 Processes for Improvement of Teaching <ul style="list-style-type: none">• <i>Review of course contents periodically by the teacher.</i>• <i>Using modern day techniques like discussion and assignments.</i>• <i>Using presentation graphics to explain a topic.</i>

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)

- *Making a comparison between sample of answers of students of different sections of the same course taught by different teachers.*
- *Students Lab Marks.*

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

- *The courses are reviewed as and when the need arises.*
- *Making a course portfolio that includes everything about the course in each semester. This includes quizzes, home works, major exams, assignments, reports and final exams. Also, it includes the model answers of exams and samples of student answers.*

Name of Instructor: **Mr. Sulieman M. A. Khudruj**

Signature: _____ Date Report Completed: 7-01-2019

Name of Field Experience Teaching Staff _____

Program Coordinator: _____ **Dr. Fayez AlQahtani** _____

Signature: _____ Date Received: _____