ATTACHMENT 5.

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

Course Specifications
(CS)
Fundamentals of Database Systems
(COMP 1211)

Course Specifications

King Saud University	Date: **06/6/2017**
Community College /Computer Science	

A. Course Identification and General Information

1. Course title and code: **Fundamentals of Database Systems COMP 1211**			
2. Credit hours: **3**			
3. Program(s) in which the course is offered: **Computer Science Program**			
4. Name of faculty member responsible for the course: **Dr. Fayez AlQahtani**			
5. Level/year at which this course is offered: **Level 2**			
6. Pre-requisites for this course: **ENGL 1103**			
7. Co-requisites for this course: **-N/A**			
8. Location if not on main campus: **Community College**			
9. Mode of Instruction (mark all that apply)			
a. traditional classroom	X	What percentage?	70%
b. blended (traditional and online)	X	What percentage?	30%
c. e-learning		What percentage?	
d. correspondence		What percentage?	
f. other		What percentage?	

Comments: the main mode of instruction is traditional classroom; and the blended mode will be used for extra activities at home. This includes video tutorials, pre-tests and online games.

B Objectives

1. What is the main purpose for this course? **Providing students with required theoretical knowledge for analyzing and designing relational database systems.**
2. Briefly describe any plans for developing and improving the course that are being implemented. • **Developing pre-test to evaluate students' preparation for every class. This can be delivered online using KSU Blackboard.** • **Selecting appropriate online videos (YouTube) tutorials as extra material to support student learning activates. The URL of these YouTube videos can be gathers and provided to student via KSU Blackboard.** • **Improving the content of this course in a way to increase students' practical skills in data base design.**

C. Course Description

Course Description: **This course provides students with a comprehensive introduction to database concepts and database management systems. Principles and methodologies of database design, and techniques for database application development. Primary focus is on the relational model of database management and querying databases using Structured Query Language (SQL)**

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact hours
Database (DB) and DB users	**2**	**6**

File systems approach Vs Database Approach	**1**	**3**
Characteristics of the database approach, the three level-schema architecture and data independence	**2**	**6**
DBMS Architecture	**1**	**3**
Data models and DBMS Languages Major Exam-1	**1**	**3**
Developing The Entity Relationship Model (notations and concepts) (ER-model)	**4**	**12**
Mapping Entity Relationship Model (ER_ model) into Relational Model **Major Exam-2**	**3**	**9**
Introduction to SQL standard	**1**	**3**
Final Exam		

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

	Lecture	Tutorial	Laboratory or Studio	Practical	Other:	Total
Contact Hours	45					45
Credit	3					3

3. Additional private study/learning hours expected for students per week. 5

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

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

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	**Knowledge**		
1.1	**Define the concepts of Database and Database systems.**	• **Lecturing, tutorials & blended learning.**	• **Pre-test, Tutorials, Quizzes, and Exams.** • **Tutorials, Exams and projects.**
1.2	**Illustrate the processes and activities of designing relational database systems.**		
2.0	**Cognitive Skills**		
2.1	**Analyze given requirements of database systems.**	• **The use of modern scientific references and focus on the practical side.** • **Work together as a team to resolve some issues.**	• **Student participation during the semester.** • **Exams and quizzes.**
2.2	**Develop a design of relational database system, based on given requirements.**		
3.0	**Interpersonal Skills & Responsibility**		
3.1	**Show commitment to study and participate in class/out-of-class activities.**	• **Task assignment** • **Group discussions** • **Practical exams** • **Case studies** • **Presentations and examples**	• **Viva voce** • **Review of their assignments** • **Response in the classroom**
3.2	**Demonstrate excellent level of teamwork skills.**		
4.0	**Communication, Information Technology, Numerical**		
4.1	**Demonstrate constructive communication with classmates and the lecturer while working on projects and other course activities**	• **Debate on the latest technologies** • **Gather information about the new technological developments** • **Group activities** • **Exposure to Internet**	• **Formation of groups** • **Debate on a given topic** • **Assignments** • **Presentations** • **Question (quizzes) and answer sessions** • **Visit to computer hardware market and prepare report on the latest systems available in the market**
4.2	**Use emails, wikis, and discussion forms effectively to communicate with classmates and the lecturer**		
5.0	**Psychomotor**		
5.1	**N/A**		

5. Map course LOs with the program LOs.							
Course LOs #	**Program Learning Outcomes (Use Program LO Codes provided in the Program Specifications)**						
	1.1	**2.1**	**2.2**	**2.3**	**3.1**	**3.2**	**4.1**
1.1	**X**						
1.2	**X**						
2.1			**X**				
2.2		**X**		**X**			
3.1					**X**	**X**	
3.2					**X**		
4.1							**X**
4.2							**X**

6. Schedule of Assessment Tasks for Students During the Semester			
	Assessment task	Week Due	Proportion of Total Assessment
1	**Pre-tests**	**2,3.., 10**	**6 %**
2	**Tutorials**	**2,3.., 10**	**6 %**
3	**Quiz 1, Quiz 2, Quiz 3 & Quiz 4**	**3, 5, 8, 11**	**8 %**
4	**Major Exam – I**	**7**	**15 %**
5	**Major Exam – II**	**11**	**15%**
6	**Project – I**	**9**	**5 %**
7	**Project – II**	**13**	**5 %**
8	**Final Exam**	**> 15**	**40%**

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice.

- **Providing students with 5 hours every week for individual consultation. This time is devoted to provide students with help and advice in relation to personal affair, learning progress, and complexity of the subject.**
- **Motivating student to make use for the information available in the instructor's website.**
- **Using e-mail to send home works and questions.**

E Learning Resources

1. List Required Textbooks **Fundamentals of Database Systems, Six Edition (or latest), Ramez Elmasri, Shamkant Navathe.**
2. List Essential References Materials **DATABASE SYSTEMS: THE COMPLETE BOOK, Second Edition (or latest) Hector Garcia-Molina Jeffrey D. Ullman Jennifer Widom**
3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)
4. List Electronic Materials, Web Sites, Facebook, Twitter, etc. **http://www.cse.iitb.ac.in/~sudarsha/db-book/slide-dir/** **http://www.ebook3000.com/Fundamentals-of-Database-Systems--4th-Edition-_23630.html** **www.lms.ksu.edu.sa**
5. Other learning material such as computer-based programs/CD, professional standards or regulations and software. PowerPoint Presentation

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories
1. Accommodation • **Computer lab of 24 PCs for each section.** • **E-Blackboard** • **Projector.** • **Printer**.
2. Computing resources

Computers, Printer, Projector, and Internet Connection
3. Other resources **None**

G Course Evaluation and Improvement Processes

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching • **Through open dialogue with the students periodically to inform their views on the extent of success in achieving its objectives due.** • **Through the course evaluation sheet.**
2. Other Strategies for Evaluation of Teaching by the Instructor or by the Department • **The students at the end of the semester assessment decision electronically**
3. Processes for Improvement of Teaching • **Evaluation of students feedbacks and marks** • **Attending training courses.** • **Attend workshops in order to facilitate the exchange of experiences between faculty members** • **Follow the latest developments on the new releases (articles or books) related to the topics contained in database field.**
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) • **Compare students' marks in different exams.** • **Students' feedback for course and instructor evaluation.** • **Internal and External Committees**
5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

- **Comparing the course with others institutions**
- **Feedback from External Reviewers.**

Name of Instructor: **Dr. Fayez AlQahtani**

Signature: _____ Date Report Completed: **06/6/2017**

Name of Field Experience Teaching Staff _____

Program Coordinator: **Dr. Fayez AlQahtani**

Signature: _____ Date Received: **08/6/2017**