Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

NCAAA
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

Principles to Database Systems COMP 2302

(05-02-2017)

Dr. Mohammed Amoon

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

Course Specifications

King Saud University	Date: Feb 05, 2017

Riyadh Community College /Computer Science

A. Course Identification and General Information

1. Course title and code: **Principles to Database Systems, COMP 2302**
2. Credit hours: **3 (3+0)**
3. Program(s) in which the course is offered: **Computer Science Program**
4. Name of faculty member responsible for the course: **Dr. Mohammed Amoon**
5. Level/year at which this course is offered: **Level 3**
6. Pre-requisites for this course: **CT 1201**
7. Co-requisites for this course: -
8. Location if not on main campus: **Community College**

9. Mode of Instruction (mark all that apply)

a. traditional classroom	X	What percentage?	80
b. blended (traditional and online)	X	What percentage?	20
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.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

B Objectives

1. What is the main purpose for this course?
Providing students with required theoretical knowledge as well as practical skills 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. This can be done by giving Lap exercises to design database systems using MS Visio, and MS Access.**

C. Course Description

Course Description:
This course is the foundation of Database discipline. It provides students the important concepts of database and database systems. Also, it help students gain the required knowledge and skills to design relational database systems. This include analyzing database case studies, developing database models for those case studies using ER-model, and then transforming ER-models into Relational models.

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

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

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	1	3
Developing The Entity Relationship Model (notations and concepts) (ER-model)	4	12
Mapping Entity Relationship Model (ER_ model) into Relational Model	3	9
Introduction to SQL standard	1	3

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

	Lecture	Tutorial	Laboratory or Studio	Practical	Other:	Total
Contact Hours	30	15				45
Credit	2	1				3

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

3

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

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	Defining the concepts of Database and Database systems.	Lecturing Tutorials	Home works, quizzes, and Exams.
1.2	Illustrating the processes and activities of designing relational database systems.		Exams and projects.
2.0	**Cognitive Skills**		
2.1	Analyzing given requirements of database systems.	Lecturing Tutorials Problem solving.	Exams and projects.
2.2	Developing a design of relational database system, based on given requirements.		Exams and projects.
3.0	**Interpersonal Skills & Responsibility**		
3.1	Showing commitment to study and participate in class/out-of-class activities.	Tutorials Small groups Open dialogue and discussions	Attendance, presentations, participation and projects.
3.2	Demonstrating excellent level of teamwork skills.		Class observations and projects.
4.0	**Communication, Information Technology, Numerical**		
4.1	Demonstrating constructive communication with classmates and the lecturer while working on projects and other course activities	Tutorials Small groups Open dialogue and discussions	. Presentations and projects
4.2	Using emails, wikis, and discussion forms effectively to communicate with classmates and the lecturer		Presentations and projects.

5. Map course LOs with the program LOs.

Course LOs #	Program Learning Outcomes (Use Program LO Codes provided in the Program Specifications)						
	PLO 1	**PLO 2**	**PLO 3**	**PLO 4**	**PLO 5**	**PLO 6**	**PLO 7**
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

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

املكـة العربيـة السعوديـة
الهيئـة الوطنيـة للتقويـم
والاعتمـاد الأكاديمـي

	Assessment task	Week Due	Proportion of Total Assessment
1	Home works	Weeks 4, 8, 12	6 %
2	Tutorials	Weeks 2,3.., 10	6 %
3	Quiz 1, Quiz 2, Quiz 3 & Quiz 4	3, 5, 8, 11	8 %
4	Major Exam – I	6	15 %
5	Major Exam – II	12	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, Fourth 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

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

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
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
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

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكــة العربيــة السعوديــة
الهيئــة الوطنيــة للتقويــم
والاعـتمـاد الأكـاديـمـي

- **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. Mohammed Amoon_____

Signature: ____FH_____   Date Report completed: 05/02/17

Name of Field Experience Teaching Staff _____Information Systems _____

Program Coordinator: _____

Signature: _____   Date Received: _____