Al Imam Mohammad ibn Saud Islamic University
College of Computer and Information Sciences

Computer Science Department

Course Syllabus
CS370 - Introduction to Databases

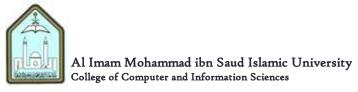|	
Catalog Description:	This course introduces the basic concepts in database systems and architectures, including data models, database design and implementation. It emphasis on topics in ER model and relational databases including relational data model, SQL, functional dependency and normalization, database design process. This course includes a group project in which students develop real-life database applications.
Credit Hours:	**3 Credit hours:** **3** Lectures per week **0** Labs. per week **0** Recitation per week
Prerequisites:	CS242 - Data Structures
Course Learning Outcomes:	1. Understanding the basic concepts, the necessity and the utility of the databases within software and organizations 2. Acquiring the analysis skills used when studying user needs and software requirements in terms of database components 3. Gaining knowledge and experience in designing, implementing and populating relational databases 4. Apprehending the queries formulation on databases using relational algebra and SQL SELECT command 5. Demonstrating the ability of installing and working with any database management system using SQL
Major Topics:	- Databases and Database Users - Database System Concepts and Architecture - Data Modeling Using the Entity-Relationship (ER) Model - The Enhanced Entity-Relationship (EER) Model - The Relational Data Model and Relational Database Constraints - Relational Database Design by ER-to-Relational Mapping - The Relational Algebra and Relational Calculus - Basic SQL - Complex Queries, Triggers, Views, and Schema Modification - Basics of Functional Dependencies andNormalization for Relational Databases
Text Books:	Fundamentals of Database Systems, Elmasri and Navathe, 6th edition, Addison-Wesley, 2010.

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Grading:

◉ The grading scale for this course is:
. 95 - 100 A+ Passing
. 90 - 94   A   Passing
. 85 - 89   B+ Passing
. 80 - 84   B   Passing
. 75 - 79   C+ Passing
. 70 - 74   C   Passing
. 65 - 69   D+ Passing
. 60 - 64   D   Passing
. 0 - 59   F   Failing

◉ Final grades will be determined based on the following components:
. 60% Semester Work
. 40% Final Exam

◉ Students may not do any additional work for extra credit nor resubmit any graded activity to raise a final grade.

◉ Late submissions will not be accepted for any graded activity for any reason.

◉ Studentshave one week to request the re-grading of any semester work.
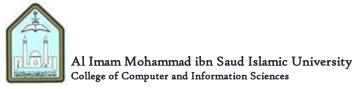
Attendance Policy:

Students should attend 80% of the overall course hours taught in the semester as per the University regulations.

If a student fails to achieve this portion, he/she shall not be allowed to appear in the final exam and shall be awarded "DN" grade and repeat the course.

Cheating and Plagiarism Policy:

The instructor will use several manual and automated means to detect cheating and/or plagiarism in any work submitted by students for this course.

When a student is suspected of cheating or plagiarism, the instructor raises the issue to the disciplinary committee.

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Communications: Registered students will be given access to a section of the Blackboard Learning System for this course. Bb will used as the primary mechanism to disseminate course information, including announcements, lecture slides, assignments, and grades.

Communication with the instructor on issues relating to the individual student should be conducted using CIS email, via telephone, or in person.