

Course Profile

Course Name:-	Database Systems
Course Code:-	CEN 216
Academic Year:-	2013-2014
Semester:-	2

Course Overview

This course is introducing the following topics

- Understand how to write and modify SQL query.
- Encourage the students to discuss during lecture to obtain in-depth knowledge of database.
- To teach students how to access the database and understand the data models.
- Deals with the creation of ER Diagrams and its applications

Course Details

Level:-	6
Credit:-	3 (2-0-2)
Pre-Requisites:-	CEN 212
Co- Requisites:-	NIL

Learning Outcomes of Course

After successful completion of this course, student will be able to-

1. To understand how to use databases in day to day applications.
2. To be familiar with a broad range of data management issues including data integrity and security.
3. Be able to create databases and use complex SQL queries in relational databases.
4. Be able to write and modify SQL query.
5. Be able to create an ER diagram
6. Be able to modify database.
7. Be able to analyze the data and how to use data in database.

Course Assessment

Name of Assessment Task	Weight of Assessment	Week Due
1. Midterm Exam-1	20%	Week 7
2. Midterm Exam-2 – Quizzes	10%	Week 13
3. Assignments/Report/Seminar	10%	Week 14
4. Practical	20%	Every Week
5. Final Exam	40%	Week 16/17

Assessment Task and Learning Outcomes Alignment

Assessment Task Name	Course Learning Outcomes						
	1	2	3	4	5	6	7
1. Midterm Exam-1	√	√					
2. Midterm Exam-2 -Quizzes			√	√			
3. Assignments/Report/Seminar					√	√	√
4. Practical			√	√		√	
5. Final Exam	√	√			√		√

Teaching Contact Details

Name of Course Coordinator:-	Prof. Saravanan
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Lab/Tutorial Instructor:-	Mr. Mohammed Rafiq
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Office Hours:-	Sunday: 10 am to 11 am Tuesday: 8 am to 12 pm
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Details of Required Text Book

Book Name	Authors Name	Publisher	Year	Edition
1. Fundamentals of Database Systems	R. Elmasri, S. B. Navathe	Addison Wesley	2010	6

Details of Required Reference Books

Book Name	Authors Name	Publisher	Year	Edition
1. Introduction to Database Systems	C. J. Date	Addison Wesley	2003	8
2. Database Management Systems	Ramakrishnan, Gehrke	Mc Graw Hill	2002	3

IT Resources

The following IT Resources will require to access-

- Internet
- <http://faculty.mu.edu.sa/stirumalai/>

Course Schedule

Course Topics	Book's Chapter	Event Name	Week Due
Introduction of Database System	R. Elmasri, S. B. Navathe, "Fundamentals of Database Systems" – Chapter 1		Week-1
Characteristics & Advantages of DBMS, Structure of Databases	Chapter 1		Week-2
Data Independency, Classification of DBMS, Database Languages,	Chapter 2		Week-3
Views, Triggers, Transaction Management	Chapter 5		Week-4
Abstraction in DBMS, Database Models, Entity and Entity Set, Naming Conventions & Design Issues in ER Model, ER Diagrams.	Chapter 8		Week-5
Relational Database Models. Domains, Attributes, Integrity Constraints, Relational Algebra Operations	Chapter 3		Week-6
		Mid Term 1	Week-7
Functional Dependencies, Normalization	Chapter 15,21		Week-8
Transaction Processing Concepts.	Chapter 3-5		Week-9

Characteristics & Advantage of SQL, SQL Data Types			
Literals, Commands, Operators. Tables, Views	Chapter 3-5		Week-10
Indexes, Queries and sub queries	Chapter 3-5		Week-11
Concurrency Control	Chapter 21		Week-12
		Mid Term 2 - Quizzes	Week-13
Database Security	Chapter 24		Week-14
Revision		Assignment Submission	Week-15
			Exam Week

Referencing Style

The **American Psychological Association (APA)** referencing style must be use for all submissions of this course.

Course Assessment Task

Assessment Name	Midterm Exam-1
Description of Task Assessment	This assignment is aligned to learning outcomes 1 & 2. In that regard, the assignment contains questions that assess: 1) students' thorough understanding in the concepts of database systems 2) issues in database management systems
Task Assessment Due Week/Date	Week 7
Return Week/Date to Students	Week 8
Weight of Task Assessment	20%
List Learning Outcomes Assessed	<ol style="list-style-type: none"> 1. To understand how to use databases in day to day applications. 2. To be familiar with a broad range of data management issues including data integrity and security.

Assessment Name	Mid Term 2 - Quizzes
Description of Task Assessment	This assignment is aligned to learning outcomes 3 & 4. In that regard, the assignment contains questions that assess students' thorough understanding in SQL queries
Task Assessment Due Week/Date	Week 13
Return Week/Date to Students	Week 14
Weight of Task Assessment	10%
List Learning Outcomes Assessed	<ol style="list-style-type: none"> 3. Be able to create databases and use complex SQL queries in relational databases. 4. Be able to write and modify SQL query.

Assessment Name	Assignment
Description of Task Assessment	This assignment is aligned to learning outcomes 5,6 & 7. In that regard, the assignment contains questions that assess: students' thorough understanding in drawing ER diagrams
Task Assessment Due Week/Date	Week 15
Return Week/Date to Students	Week 15
Weight of Task Assessment	10%
List Learning Outcomes Assessed	5. Be able to create an ER diagram 6. Be able to modify database. 7. Be able to analyze the data and how to use data in database

Assessment Name	Practical
Description of Task Assessment	This assignment is aligned to learning outcomes 3,4 & 6. In that regard, the assignment contains questions that assess students' thorough understanding SQL queries
Task Assessment Due Week/Date	Every week as prescribed
Return Week/Date to Students	Every week as prescribed
Weight of Task Assessment	20%
List Learning Outcomes Assessed	3. Be able to create databases and use complex SQL queries in relational databases. 4. Be able to write and modify SQL query. 6. Be able to modify database

Assessment Name	Final Exam
Weight of Task Assessment	40%
Duration	180 Minutes
Warning	No Calculator Permitted Closed Books
Learning Outcomes Assessed	<ol style="list-style-type: none"> 1. To understand how to use databases in day to day applications. 2. To be familiar with a broad range of data management issues including data integrity and security. 5. Be able to create an ER diagram 7. Be able to analyze the data and how to use data in database.