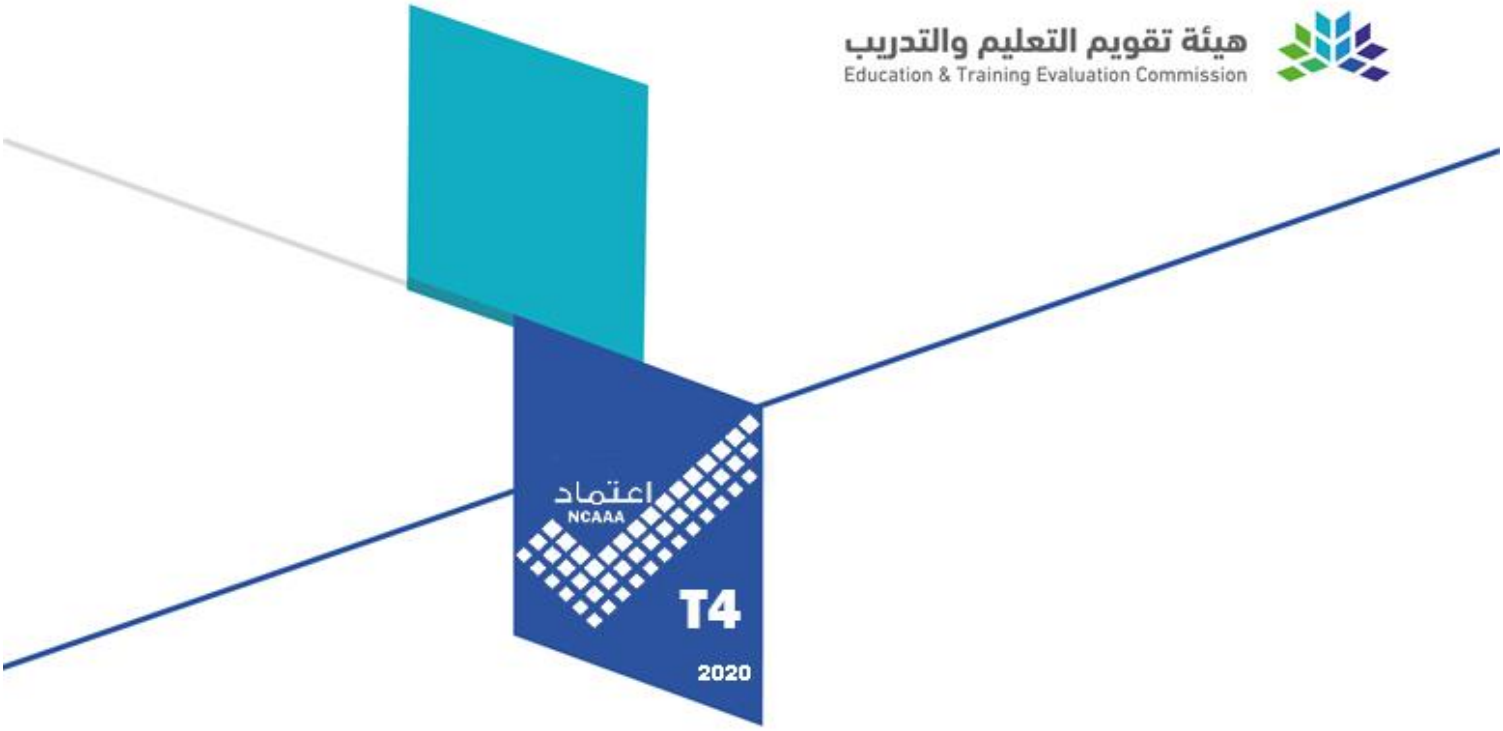
هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission



Course Specifications

Course Title:	**Database**
Course Code:	**CSI 314**
Program:	**Computer Science and Information Technology**
Department:	**Computer Science and Information**
College:	**Science at Al-Zulfi**
Institution:	**Majmaah**

Table of Contents

A. Course Identification

1. Credit hours:
2. Course type **a.** University ☐ College ☐ Department ☑ Others ☐ **b.** Required ☑ Elective ☐
3. Level/year at which this course is offered: 3
4. Pre-requisites for this course (if any)**:** Computer Programming (CSI 314)
5. Co-requisites for this course (if any)**:**

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	✓	%80
2	**Blended**	✓	%5
3	**E-learning**	✓	%5
4	**Distance learning**	✓	%5
5	**Other**	✓	%5

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	30
2	**Laboratory/Studio**	30
3	**Tutorial**	
4	**Others** (specify)	
	Total	60

B. Course Objectives and Learning Outcomes

1. Course Description

What is the main purpose for this course?

The main objective of this course is to provide students with the theoretical background and practical experience relating to the design and implementation of relational databases. The main objectives of the course are:

1. Learn the fundamental database concepts and systems methodologies to design database systems. (10%)
2. Understand data modeling using ER Model and EER Model and the mappings to relational model (25%)
3. Understand relational database model and database creation using the specified DBMS in DB lab (25%)
4. Understand Relational Algebra and Structured Query Language (25%)
5. Understand functional dependencies and database normalization (15%)

2. Course Main Objective

Briefly describe any plans for developing and improving the course that are being implemented:

1. Awareness of career opportunities in computer organizations by Building a complete database system suitable to Saudi companies.
2. Use ADO asp.net to build database.
3. Using MySql with apache server

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge and Understanding**	
1.1	Discuss/ explain the importance of database systems.	k1
1.2	Discuss/ explain the difference between file management and database.	k1
1.3	Design a suitable database components and environments.	k1
1.4	Formulate the major constructs of relational DB language SQL.	k1
1.5	Discuss/ explain the importance of database systems.	K3
1.6	Discuss/ explain the difference between file management and database.	K3
1.7	Design a suitable database components and environments.	K3
1.8	Formulate the major constructs of relational DB language SQL.	K3
2	**Skills :**	
2.1	Employ analytical skills as appropriate during database design and manipulation process.	S1
2.2	Design and implement practical database system. In particular, be able to discuss, explain, and apply the relational model and mappings from conceptual designs to particular normalizations.	S1
2.3	Identify a range of DB-solutions and critically evaluate them and justify proposed design and development solutions.	S1
2.4	Analyze a wide range of database design issues and provide solutions through suitable design, structures, diagrams, and other appropriate design methods.	S1
2.5	Be able to apply and evaluate suitable database security and integrity levels.	S1

CLOs		Aligned PLOs
3	**Values:**	
3.1	Work in a group and learn time management.	C1
3.2	Learn how to search for information through library and internet.	C1
3.3	Present a short report in a written form and orally using appropriate scientific language	C1

C. Course Content

No	List of Topics	Contact Hours
1	**Databases and Database Users**	3
2	**Database System Concepts and Architecture**	3
3	**Data Modeling Using the Entity-Relationship Model**	6
4	**The Relational Data Model and Relational Database Constraints**	6
5	**ER-to-Relational Mappings**	6
6	**The Relational Algebra**	6
Total		30

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge and Understanding**		
1.1	Discuss/ explain the importance of database systems.	• Developing basic communication • Ability through short and varied situated discourse. • Lecturing • Team work • Exercises	• Homework. • Group Discussion • Presentation • Mid-term exam Final test
1.2	Discuss/ explain the difference between file management and database.		
1.3	Design a suitable database components and environments.		
1.4	Formulate the major constructs of relational DB language SQL.		
1.5	Discuss/ explain the importance of database systems.		
1.6	Discuss/ explain the difference between file management and database.		
1.7	Design a suitable database components and environments.		
1.8	Formulate the major constructs of relational DB language SQL.		
2.0	**Skills**		
2.1	Employ analytical skills as appropriate during database design and manipulation process.	• Problem solving • Class discussion • Presentation Individual meeting with the instructor (encouraging students to discuss different topics outside the classroom)	• Class Participation • Presentation • Essay Questions Research topics
2.2	Design and implement practical database system. In particular, be able to discuss, explain, and apply the relational model and mappings from conceptual designs to particular normalizations.		
2.3	Identify a range of DB-solutions and critically evaluate them and justify		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	proposed design and development solutions.		
2.4	Analyze a wide range of database design issues and provide solutions through suitable design, structures, diagrams, and other appropriate design methods.		
2.5	Be able to apply and evaluate suitable database security and integrity levels.		
3.0	**Values**		
3.1	Work in a group and learn time management.	• Discussion with students • Making students aware about time management in completing their assignments. • Counsel students how to make a good presentation in Database and DBMS Encourage students to help each	• Respecting deadlines. • Showing active class participation. • Helping other students to understand tasks in the class. • Giving clear and logical arguments Performing seriously on midterms and final exams
3.2	Learn how to search for information through library and internet.		
3.3	Present a short report in a written form and orally using appropriate scientific language		

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	First written mid-term exam	6	15%
2	Second written mid-term exam	12	15%
3	Class activities, group discussions, Presentation	Every week	5%
4	Homework + Assignments	After Every chapter	5%
5	Final Lab Exam	15	20%
6	Final written exam	16	40%
7	First written mid-term exam	6	15%

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

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

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)

Office hours: Mon: 10-12, Wed: 8-10

Email: m.jemmali@mu.edu.sa

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	1) Database System Concepts 7th Edition Silberschatz, Korth and Sudarshan, Mc Graw Hil 2017 ISBN-13: 978-0078022159 2) Fundamentals of Database Systems (7th Edition)Ramez Elmasri and Shamkant Navathe Pearsons 2015 ISBN-10: 0133970779 3) Oracle Database 11g & MySQL 5.6 Developer Handbook Michael McLaughlin Mc Graw Hil 2012 ISBN: 978-0-07-176885-6
Essential References Materials	Jeffrey A. Hoffer, Mary Prescott, Fred McFadden, Modern Database Systems, 7th Ed., Prentice Hall
Electronic Materials	http://crystal.uta.edu/~elmasri/db1/
Other Learning Materials	MySql Guide

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms with required digital aids and to support traditional method of teaching using Blackboard. • Classrooms with proper lighting and air conditioning system integrated with the sound System /audio system. • Classroom with smart board interface, display screen and a computer to aid the sessions
Technology Resources (AV, data show, Smart Board, software, etc.)	Smart Board with supporting software / computers with updated versions of software as required to understand the subject concepts (MySql).
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Student's evaluation CLO.	Students	Questioner
Discussion within the staff members teaching the course	Peer Reviewer	Direct
Departmental internal review of the course.	Peer Reviewer	Direct
Reviewing the final exam questions and a sample of the answers of the students by others.	Peer Reviewer	Direct
Visiting the other institutions that introduce the same course one time per semester.	Faculty	Indirect

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Discussion within the staff members teaching the course	Peer Reviewer	Direct
Student's evaluation CLO.	Students	Questioner

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Program plan committee
Reference No.	
Date	27/12/2020