هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

اعتماد NCAAA T4 2020

Course Specifications

Course Title:	Fundamentals of Database
Course Code:	IS 213
Program:	Computer Science / Information Technology
Department:	Information Systems
College:	College of Computer and Information Sciences
Institution:	Majmaah University

Table of Contents

A. Course Identification

1. Credit hours: 3 (3+0+1)	
2. Course type	
a. University ☐ College ☐ Department ☑ Others ☐	
b. Required ☑ Elective ☐	
3. Level/year at which this course is offered: Level-4	
4. Pre-requisites for this course (if any): CS 131	
5. Co-requisites for this course (if any): CS 211	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	44	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	33
2	Laboratory/Studio	
3	Tutorial	11
4	Others (specify)	
	Total	44

B. Course Objectives and Learning Outcomes

1. Course Description

This course includes the following topics:
Database concepts and architecture; data models, database schemes and instances, DBMS and the concept of program-data independence, database languages and interfaces, database models, relational data model and relational algebra, relational model constraints; domains, keys, and integrity constraints, the structured query language (SQL); data definition, queries, update, statements, and views in SQL, database design; functional dependencies, normal forms.

2. Course Main Objective

The main purpose for this course, Understand the basics and concepts of database systems. Design, implement and evaluate a computer-based DB system to meet desired users' needs, use professionally Structured Query Language (SQL) and understand SQL processing

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge and Understanding**	
1.1		
1.2	CLO(2) Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles	K2
1.3		
1...		
2	**Skills :**	
2.1		
2.2	CLO(4) Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline	S2
2.3		
2...		
3	**Values:**	
3.1		
3.2		
3.3		
3...		

C. Course Content

No	List of Topics	Contact Hours
.1	Database concepts and architecture	4
.2	Data models, database schemes and instances	4
.3	DBMS and the concept of program-data independence	4
.4	Database languages and interfaces	4
.5	Database models, relational data model and relational algebra, relational model constraints	4
.6	Domains, keys, and integrity constraints, Structured query language (SQL); data definition, queries	4
.7	Update, statements	4
.8	DCL Statements, Views in SQL	4
.9	Database design	4
.10	Functional dependencies	4
.11	Normal forms and Examples	4
Total		44

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			
1.2	CLO(2) Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles	lecture, lab	Class Test, Mid Exam, Final Exam

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
…			
2.0	**Skills**		
2.1			
2.2	CLO(4) Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline	lecture, lab	Group Assignments, Mini Project
…			
3.0	**Values**		
3.1			
3.2			
…			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Quizzes	Week 3, Week 8	20%
2	Assignments	Week 3, Week 9	10%
3	Mid Term Exam	Week 5	20%
4	Tutorial	Every Week	10%
5	Final Exam	Week 12	40%

***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 :

Each student is allotted to an academic advisor for guidance and counselling

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	Carlos Coronel, Steven Morris, and Peter Rob, Database Principles: Fundamentals, Design, Implementation, and Management, Cengage Learning, 10th edition, 2013.
Essential References Materials	Jeffry D Ulman, Jenifer Widom, a first course in Database Systems, Pearson New International Edition,3rd edition, 2007 Ramakrishnan, Gehrke, Database Management Systems, Mc Graw Hill, 3rd edition, 2002
Electronic Materials	IEEE Computer Society – Participation in Webinars and discussions through blogs
Other Learning Materials	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classroom
Technology Resources (AV, data show, Smart Board, software, etc.)	PC or Laptop with Windows/Linux, Smart Board, Projector
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Internet Connection

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Final Exam Answer Scripts Verification	Peer faculty members	Review
Course Feedback	Students	Survey
Achievement of CLOs	Instructor	Direct

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	
Reference No.	
Date	