هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title:	**Database Management System**
Course Code:	**173 CIS-3**
Program:	**Information System**
Department:	**Computer**
College:	**Applied College**
Institution:	**Najran University**
Version: T-104 2022	
Last Revision Date:	10/1/1445

Table of Contents:

A. General information about the course:

Course Identification					
1. Credit hours:	3(2+1)				
2. Course type					
a.	University ☐	College ☐	Department☒	Track☒	Others☐
b.	Required ☒	Elective☐			
3. Level/year at which this course is offered:	**Level: ٢rd / Year: 1st**				
4. Course general Description: The course reviews topics such as conceptual data modelling, relational data model, relational query languages, relational database design and Gives them knowledge about Normalization and Normal Forms. It exposes the student to the fundamental concepts and techniques in database use and development as well provides a foundation for research in databases. Advanced Access Programming Techniques					
5. Pre-requirements for this course (if any): **272 CIS-3** Introduction to database					
6. Co- requirements for this course (if any): **Not Exist**					
7. Course Main Objective(s) - Identify Basic Concepts and techniques relating to Databases Management Systems (DBMS). -Use classical and improved techniques for data modeling. - Identify the Relational Model for database. - Complete database projects at the advanced level. - Discover advanced options for the use of forms. - Discover advanced options and tips for building and using queries.					

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	4 hours per week	100%
2.	E-learning		
3.	Hybrid • Traditional classroom • E-learning		
4.	Distance learning		

2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	٣٠
2.	Laboratory/Studio	30
3.	Field	
4.	Tutorial	
5.	Others (specify)	
	Total	60

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Define the main concepts of DBMS	K1=I	• Lectures, • Brainstorming, • Class • Discussion • Lab Reports	• Class work • home works assignments • Quizzes • Midterm Exams • Final Exam
1.2	Describe the principles and techniques of DBMS	K2=I		
1.3	Identify the Relational Model for database	K3=I		
2.0	Skills			
2.1	Analysis Structured Query	S1=M	•Lecture •Brainstorming •Small Group Work •Lab Demonstration •Project •Exam •Group Reports •Lab Reports	•home works assignments •Quizzes •Midterm Exams •Final Exam
2.2	Design Database applications	S2=M		
…				
3.0	Values, autonomy, and responsibility			
3.1	Demonstrate projects and assignments in team work for DBMS applications	C1=P	• Small group work and presentations • projects	•Group reports and presentations
3.2				
...				

C. Course Content

No	List of Topics	Contact Hours
1.	An Introduction to Database Development	2 (Theory)
2.	The Relational Database Model Lab: Understanding Access Tables Design a Database and create required tables.	2 (Theory) ٢x2 (Lab)
٣	Relational Query Languages , Relational Algebra Lab: Design a Database and link to other databases.	2(Theory) 2x2 (Lab)
٤	Database Design Using the E-R Model: Overview of the Design Process, The Entity-Relationship Model Lab: Customizing and filtering on the Datasheet View, and how to split an Access database into front and back-end	2(Theory) 2x2 (Lab)
5	Complex Attributes, Mapping Cardinalities, Primary Key Lab: Primary Keys and Indexes in Access.	2 (Theory) 1x2 (Lab)
6	Relational Database Design: Features of Good Relational Designs, Decomposition Using Functional Dependencies Lab create Relational Database	2(Theory) 2x2 (Lab)
	Microsoft Access Programming Fundamentals Lab: Basics of Macros, Macros on Events; Auto Exec Convert Macros to VBA; VBA Editor and Property Windows	2(Theory) 2x2 (Lab)
	Advanced Access Programming Techniques Lab: Accessing Data with VBA Lab: Advanced Data Access with VBA	4(Theory) 2x3 (Lab)
7	Working with Access Forms and Reports.	2(Theory) 2x3 (Lab)
	Normalization Theory and Normal Forms Lab: Creating advanced Forms	2(Theory) 2x2 (Lab)
Total		60

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Assignment	2-13	10%
2.	Mid Monthly Exam	8	20%
3.	Practical exam	16	20%
4	Final exam	17	50%
5	Total		100%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	DATABASE SYSTEM CONCEPTS, SEVENTH EDITION, Abraham Silberschatz, Yale University, Henry F. Korth,2020, ISBN 9780078022159 , 0078022150
Supportive References	
Electronic Materials	
Other Learning Materials	http://lms.nu.edu.sa/webapps/portal/frameset.jsp

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Computer Lab with 25 seats + A Lecture room with 30 seats per section
Technology equipment (projector, smart board, software)	25 PCs, Data show, Microsoft Access
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Student	Direct: Questioners
Effectiveness of students assessment	Teacher Audit and review committees	Direct: CW & HW Exercises and short quizzes Projects Mid and final paper exams.
Quality of learning resources	Teachers and course description committees	Indirect: Benchmarking Self-evaluation External evaluation
The extent to which CLOs have been achieved	Teacher	Direct: Measuring the learning outcomes
Other		

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE