هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title:	**Data management**
Course Code:	**262CIS-3**
Program:	**Information system**
Department:	**Computer department**
College:	**Applied college**
Institution:	**Najran university**
Version:	**Version 4**
Last Revision Date:	26 /8/ 2023

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: 5th Level					
4. Course general Description					
5. Pre-requirements for this course (if any): None					
6. Co- requirements for this course (if any): None					
7. Course Main Objective(s) The purpose of this course is to provide a comprehensive introduction to the use of database management systems for applications. Part1 discuss the concept Data and the Enterprise how the information is a key business resource, different types of data, importance of the quality of the data, the common problems with data, this part highlighting that the management of data is a business issue. part2 introduce the databases and their development, how the systems databases are designed apply SQL language to creation, manipulation, it introduces the concepts of database architecture and the various types of databases, conceptual data modelling and relational data analysis. The last part discusses the importance of data management.					

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	2٨
2.	Laboratory/Studio	2٨
3.	Field	
4.	Tutorial	
5.	Others (specify)	
	Total	5٦

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	Explain the concepts of database architecture, conceptual data modelling and relational data analysis techniques and how these lead to a physical database design.	K1=I	•Lectures, •Brainstorming, •Class •Discussion •Lab Reports	•Class work •Homework's •Assignments •Quizzes •Midterm •Exams •Final Exam
1.2	Define the principles of Data Management and what is their importance included of Data Policy, Data Quality, Data Security, Data Redundancy and High Availability	K3=I	•Lectures, •Brainstorming, •Class •Discussion •Lab Reports	•Homework •Assignments •Quizzes •Midterm •Exams •Final Exam
…				
2.0	Skills			
2.1	Designing the systems databases	S1=M	•Lecture •Brainstorming •Small Group Work •Lab Demonstration •Project •Exam •Group Reports •Lab Reports	•Homework •Assignments •Quizzes •Midterm •Exams •Final Exam
2.2	Applying SQL language to creation, manipulation	S2=M		
…				
3.0	Values, autonomy, and responsibility			

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
3.1	Demonstrate projects and assignments in teamwork 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.	Data and information, data mining, big data, Scaling, Data warehouse and Data integration. **Lab**: Weka program	٤ 4
2.	Data and the Enterprise: information is a key business resource, the relationship between information and data, The data landscape, The importance of the quality of data, The common problems with data and DDL constraint and DDL constraints. **Lab**: Start to run SQL. Applied constraints in creation relations	٢ ٢
3	Data and the Enterprise: An enterprise-wide view of data. Managing data is a business issue and DDL deleting relation, adding, deleting, and modifying fields. **Lab**: Appling DDL deleting relation, adding, deleting, and modifying fields	٢ ٢
4	Databases and Their Development: The database architecture of an information system. Types of databases, and SQL DML insert data into table. **Lab**: Appling insert data into tables	٤ ٤
5	Databases and Their Development: Databases and Their Development: and DML Query data in the database. **Lab**: Appling select and use Aggregate Functions	٢ ٢
6	Databases and Their Development: Conceptual data modeling and SQL DML update data. **Lab**: Appling updating data into tables	2 2
7	Databases and Their Development: Relational data analysis and SQL Join Expressions **Lab**: Appling Join Expressions in quires.	2 2
8	Databases and Their Development: The role of data model. Physical database design and SQL inner Join. **Lab**: Appling SQL inner Join in quires.	٢ ٢
9	What is the data management: The problems encountered without data management, data management responsibilities, data management activities and SQL outer Join. **Lab**: Appling SQL outer Join in quires.	٢ ٢

10	What is the data management: Roles within data management, The benefits of data management, and overview of SQL views and simple views. **Lab**: Appling SQL views and simple views	٢ ٢
11	What is the data management: The relationship between data management and enterprise architecture and SQL complex views. **Lab**: Appling SQL complex views.	٢ ٢
١٢	Review and lab exam	4
		56

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Midterm exam	8	20%
2.	Homework's	From 2 to 13	10%
3.	Practical exam	14	20%
4	Final exam	16	50%

*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	PRINCOPLES OF MANAGEMENT Facilitating information sharing Third edition Keith Gordon
Supportive References	Database Systems: A Practical Approach to Design, Implementation, and Management 4th Edition, Addison-Wesley, 2005, ISBN - 0321210255, 9780321210258
Electronic Materials	https://lms.nu.edu.sa/
Other Learning Materials	oracle live. https://livesql.oracle.com/apex/f?p=590:1000 https://www.w3schools.com/css/css_intro.asp http://lib.nu.edu.sa/DigitalLibbrary.aspx

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Lecture rooms should be large enough to accommodate the number of registered students
Technology equipment (projector, smart board, software)	Black Board/Data Show
Other equipment (depending on the nature of the specialty)	A separate Web Technology lab is required for lab exercise

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