Course Specification
(Bachelor)

Course Title:	Database Development
Course Code:	BIDA220
Program:	Business Intelligence and Data Analysis
Department:	Computer
College:	Applied College
Institution:	Najran University
Version:	1
Last Revision Date:	12/1/1447

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours: (3 hours……)					
2. Course type					
A.	☐University	☐College	☒ Department	☐Track	☐Others
B.	☒ Required		☐Elective		
3. Level/year at which this course is offered: (… 2nd Year, Term 4 …….)					
4. Course General Description:					
Examines the principles and practices involved in designing, implementing, and managing database.leamers practice skills required for creating efficient and scalable databases that meet organizational needs. Topics covered include data modeling, normalization, SQL programming, database administration, and emerging trends in database technologies.					
5. Pre-requirements for this course (if any)**: None**					
6. Co-requisites for this course (if any)**: N/A**					
7. Course Main Objective(s):					
Introduces students to the use of databases in business intelligence and data analysis. Students learn to design, implement and manage databases to facilitate data analysis. Students explore emerging trends in database technologies.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom		
2	E-learning		
3	Hybrid • Traditional classroom • E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	24
2.	**Laboratory/Studio**	24
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		48

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

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	K1 Explain the collection, storage and structure of data	**K2**		
1.2	K2 Describe the relational database model	**K2**		
…				
2.0	**Skills**			
2.1	S1 Design an efficient storage and structure of data	S1		
2.2	S2 Create tables and relationships using database management software S3 Validate database design S4 Apply different SQL queries	S1		
2.3…	S2 Create tables and relationships using database management software S3 Validate database design S4 Apply different SQL queries	S1		
2.4	S2 Create tables and relationships using database management software S3 Validate database design S4 Apply different SQL queries	S1		

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
3.0	**Values, autonomy, and responsibility**			
3.1	V1 Function effectively as a member of a team	V1,v2		

C. Course Content

No	List of Topics	Contact Hours
1.	Chapter 1 Before the Advent of Database Systems	**3**
2.	Chapter 2 Fundamental Concepts	3
3	Chapter 3 characteristics and Benefits of a Database	**3**
4	Chapter 4 Types of Data Models	**3**
5	Chapter 5 Data Modelling	**3**
6	Chapter 6 Classification of Database Management systems	**3**
7	Chapter 7 The Relational Data Model	**3**
8	Chapter 8 The Entity Relationship Data Model	**3**
9	Chapter 9 Integrity Rules and Constraints	**3**
10	Chapter 10 ER Modelling	**3**
11	Chapter 11 Functional Dependencies	**3**
12	Chapter 12 Normalization	**3**
13	Chapter 13 Database Development Process	**3**
14	Chapter 14 Database Users	**3**
15	Chapter 15 SQL Structured Query Language	**3**
16	Chapter 16 SQL Data Manipulation Language	**3**
Total		**48**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	First Monthly Exam	8	25%
2.	Year duties	continuously	15%
3.	Practical exam	14	20%

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
	Final exam	End of semester	40%

*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	Fundamentals of Database Systems , Ramez Elmasri, Shamkant B. Navathe, Addison Wesley, The Latest Edition ISBN-13: 9780137502523
Supportive References	Title: Database Systems: Design, Implementation, & Management Publisher: Cengage Learning Published year: 2016 Author: Carlos Coronel and Steven Morris ISBN 13: 978-1-305-62748-2 / 9781305627482 10:1-305 62748-2 Title: Database Systems: A Practical Approach to Design, Implementation, and Management Publisher: Pearson Published year: 2014 Author: Thomas M. Connolly and Carolyn E. Begg ISBN 10: 1-292-06118-9
Electronic Materials	MySQL Workbench Manual https://dev.mysql.com/doc/workbench/en/ Database Design - 2nd Edition - Open Textbook Library (umn.edu)
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classroom IT Lab
Technology equipment (AV, data show, Smart Board, software, etc.)	Smartboard Presentation Technology Computer with MS Office MySQL Workbench
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	tudents, External reviewers` visit from Accreditation Agen-cy Survey Formal Classroom Observation	tudents, External reviewers` visit from Accreditation Agen-cy Survey Formal Classroom Observation

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of Students assessment	Quality and Development Unit, Curriculum Committee	Teachers`feedback, Students` feedback, Course report, Pro-fessional certifications achievement rate
Quality of learning resources	Quality and Development Unit	Annual quality improvement program review
The extent to which CLOs have been achieved	Quality and Development Unit	Course report, data analysis of achievement test
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	**المجلس التنفيذي**
REFERENCE NO.	**4600081176**
DATE	**22/12/1446هـ**