



Course Descriptor MIFS201- Fundamental of Databases

Proposed Academic Year	2020-2021	Last Reviewed Academic Year	2020-2021
Course Code	MIFS201	Course Title	Fundamental of Databases
Credit hours	03	Level of study	Undergraduate
College / Centre	CoBA	Department	MIS
Co-requisites		Pre-requisites	MIFS101

1. COURSE OUTLINE

This is an introductory course intends to provide the students with the basic concepts and approaches of databases systems and applications. Topics include Introduction to databases, design and development of databases, data models, query language (SQL), and the normalization process. MS Access and/or MYSQL/MariaDB will be used as the practical tool for this course.

2. AIMS

The course aims to equip the students with the appropriate knowledge that is needed to understand the databases and their applications and peripherals.

3. LEARNING OUTCOMES, TEACHING, LEARNING and ASSESSMENT METHODS

Learning Outcomes (Definitive)	Teaching and Learning methods (Indicative)	Assessment (Indicative)
Upon successful completion of this course, students will be able to:		
1. Demonstrate an appropriate description of databases.	Lectures, online videos tutorials and seminars, online group discussions using LMS, independent readings, individual or group work, presentation	e.g., tests, assignments, individual or group project, participation
2. Describe how the database approach helps to eliminate short coming of traditional file system.	lectures online videos tutorials and seminars, online group discussions using LMS, independent readings, individual or group work, presentation	e.g., tests, assignments, individual or group project, participation
3. Design the data model to examine the physical and logical data storage and retrieval.	lectures online videos tutorials and seminars, online group discussions using LMS, independent readings, individual or group work, presentation	e.g., tests, assignments, individual or group project, participation



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4. Formulate SQL queries to create and maintain databases, and manipulate and retrieve data	lectures online videos tutorials and seminars, online group discussions using LMS, independent readings, individual or group work, presentation	tests, assignments, individual or group project, participation

4. ASSESSMENT WEIGHTING

Assessment	Percentage of final mark (%)
Final	30
MID	30
Assignment	30
Participation	10
TOTAL	100%

5. ACHIEVING A PASS

Students will achieve **03** credit hours for this course by passing **ALL** of the course assessments [*alternatively, list the compulsory pass assessments**] and achieving a **minimum overall score of 50%**

NB *Ensure that ALL learning outcomes are taken into account

6. COURSE CONTENT (Indicative)

The Database Environment and Development Process
Data types and Applications
Data Models
Data Modeling with Entity Relationship
Normalization
Introduction to MS ACCESS
Working with Tables and data types.
Working with Form Designing
Query Designing
SQL- Select-where-and-or-not-order by-Aliases-like-in-between-max-min-sum-count-average-update-delete
Report Designing
The Database Environment and Development Process
Data types and Applications
Data Models



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Data Modeling with Entity Relationship	
Normalization	
TOTAL HOURS	
Plus RECOMMENDED INDEPENDENT STUDY HOURS	
TOTAL COURSE HOURS	

7. RECOMMENDED READING

Core text/s:

1. Coronel, C. and Morris, S., 2016. Database systems: design, implementation, & management. Cengage Learning.
2. Özsu, M.T. and Valduriez, P., 2011. Principles of distributed database systems. Springer Science & Business Media.
3. Ambler, S., 2012. Agile database techniques: Effective strategies for the agile software developer. John Wiley & Sons.
4. Any other reading or online reading resources seen appropriate by the instructor

Library + online resources:

ASU library
ASU online resources (ProQuest and ebrary)
Sultan Qaboos University Library (by agreement)

Open Educational Resources:

1. <https://learn.saylor.org/course/cs403>
2. <http://solr.bccampus.ca:8001/bcc/file/5b6f010a-0563-44d4-94c5-67caa515d2c5/1/Database-Design-2nd-Edition-1549306387.html>
3. Relational Databases and Microsoft Access