ACADEMIC YEAR	2020-2021		
Course Code & Title	INTE205 Fundamentals of Databases		
Credit hours	3	**Level of study**	Undergraduate- year 2
College / Centre	COBA		
Co-requisites		**Pre-requisites**	INTE101

1. COURSE OUTLINE

[This is an introductory course focus on delivering the basic concepts and theory of database architecture and database models. The course explores related topics including database design and development, data model, query language, and normalization process. MS access and/or MYSQL will be used for practical means.]

2. AIMS

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

3. LEARNING OUTCOMES, TEACHING, LEARNING ,ASSESSMENT METHODS , and Graduate Attributes Mapping

Learning Outcomes *(Definitive)* Upon successful completion of this course, students will be able to**:**	**Teaching and Learning methods *(Indicative)***	**Assessment *(Indicative)***	**Graduate Attributes Mapping**
1. Demonstrate an appropriate description and explanation of the databases architecture	e.g., 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	Knowledge of a discipline.
2. Formulate SQL queries to create and maintain databases, and manipulate and retrieve data	e.g., 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	Knowledge of a discipline.
3. Describe how the database approach helps to eliminate short coming of traditional file system.	e.g., 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	Knowledge of a discipline.
4. Design the data model to examine the	e.g., lectures, online videos tutorials and	e.g., tests, assignments,	Knowledge of a discipline.

physical and logical data storage and retrieval.	seminars, online group discussions using LMS, independent readings, individual or group work, presentation.	individual or group project, participation	

4. ASSESSMENT WEIGHTING

Assessment	Percentage of final mark (%)
Mid-term Exam	30
Final Exam	30
Assignments	30
Participation	10
TOTAL	**100%**

5. ACHIEVING A PASS

Students will achieve 3 credit hours for this course by achieving a minimum overall score of 50%
NB *Ensure that ALL learning outcomes are taken into account

6. COURSE CONTENT (Indicative)

LECTURE TOPIC	TIME (HOURS)
Introduction to Database	6
Database Systems	6
Data Models	6
The Relational Database Model	8
Entity Relationship (ER) Modeling	8
Normalization of Database Tables	6
Introduction to MS access and SQL	8
• create and alter tables	
• relational tables	
• Insert and update records	
• Select and delete records	

TOTAL HOURS	**48**
Plus **RECOMMENDED INDEPENDENT STUDY HOURS**	
TOTAL COURSE HOURS	**48**

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