

**MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY, JAMSHORO.**

FRM-001-QSP-004  
DEC.01, 2001.

**TENTATIVE TEACHING PLAN (THEORY)**

<b>Department:</b>	Computer Systems Engineering	<b>Name of Teacher:</b>	Zartasha Baloch
<b>Course Code:</b>	CSC-204 Database Systems	<b>Batch:</b>	20BSCS
<b>Year</b>	2 <sup>nd</sup>	<b>Semester:</b>	3 <sup>rd</sup>
<b>Semester Starting Date</b>	03-01-2022	<b>Semester Suspension Date:</b>	

Upon successful completion of the course, the student will be able to:

CLO No.	Description	Domain	Taxonomy level	Linking to PLOs
CLO-1	Identify the role of database management systems within organizations. Analyze and design database systems including data models.	Cognitive	C3	PLO1
CLO-2	Creating and accessing data from database systems using SQL and PL/SQL.	Cognitive	C4	PLO2

**Tentative Teaching Plan**

S #	Topic	Associated CLO	No: of lecture hrs required
1.	What is Data, Data versus Information, Metadata, Database and database management systems	CLO-1	02
2.	Database Development Process	CLO-1	01
3.	Entity-Relationship Model	CLO-1	01
4.	The Relational Model	CLO-1	02
5.	Normalization	CLO-1	02
6.	Introduction to SQL, ORACLE	CLO-2	01
7.	Data Retrieval from Tables	CLO-2	02
8.	Restricting and sorting data	CLO-2	01
9.	Oracle Built-in functions (Single Row functions)	CLO-2	02
10.	Group Functions	CLO-2	01
11.	Introduction to Joining, Equi-join, Non-Equi join	CLO-2	02
12.	Self-joining, Vertical joining (Union, Intersect and Minus Clause)	CLO-2	02
13.	Subqueries	CLO-2	01
14.	Table Creation, Adding new Columns, Modifying Columns, Removing Tables	CLO-2	01
15.	Data Constraints (Column and Table level Constraints, Primary and foreign key concepts, Application of other data constraints)	CLO-2	02
16.	Insertion, Updating and Deleting of data of Table	CLO-2	02
17.	Views and its Applications, Creating and Managing Views and Sequences	CLO-2	02
18.	Introduction to Indexes, Creating and Mapping Indexes	CLO-2	01
19.	Permission on the Objects, Granting Permissions, Object Privileges, Revoking Permissions	CLO-2	02

<b>20.</b>	Introduction to PL/SQL, PL/SQL execution environment, Block Structure, ORACLE Transaction	CLO-2	<b>02</b>
<b>21.</b>	Error Handling in PL/SQL, Declaring Exceptions, Implicit & Explicit Exceptions, Predefined Internal Exceptions	CLO-2	<b>02</b>
<b>22.</b>	Introduction to Cursors, Explicit and Implicit Cursors	CLO-2	<b>01</b>
<b>23.</b>	Creating and Managing Explicit Cursors	CLO-2	<b>02</b>
<b>24.</b>	Attributes of Explicit/Implicit Cursors, Attributes Cursors for Loops	CLO-2	<b>01</b>
<b>25.</b>	Introduction of Stored functions and Procedures, Internal Structure of Functions and Procedures	CLO-2	<b>02</b>
<b>26.</b>	Creating Functions and Procedures, Deleting Stored Functions and Procedures	CLO-2	<b>02</b>
<b>27.</b>	Database Administration	CLO-1	<b>01</b>
<b>28.</b>	What is Database Security? Security Threats and Countermeasures (Authorization, Views, Backup & Recovery, Integrity, Encryption, RAID)	CLO-1	<b>02</b>
<b>Total Lecture hrs.</b>			<b>45</b>

Signature of Teacher:

Dated:

Remarks of DMRC:

Signature of Chairman

Dated: