

<b>Branch Name:</b>	IMCA
<b>Program Code:</b>	CS201
<b>Course Name:</b>	DATABASE MANAGEMENT SYSTEMS-I
<b>Course Code:</b>	1CS3010203T
<b>Pre-requisite Course:</b>	Basic knowledge of working with computers.

**Course Objectives:**

1. To understand the relational database design principles
2. To understand the designing database systems and applications.
3. To understand the Implementing database systems and applications.

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture (L)	Tutorial (T)	Practical (P)	Credit	Theory (Marks)		Practical (Marks)		Total (Marks)
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
4	-		4	60	40	-	-	100

**Course Contents:**

Unit No	Topic	Total Hours	Weightage (%)
1	<b>Introduction to Database System:</b> Basic Concepts: Data, Information, Database, Database Systems, Database Management Systems, Instance, Schema, Database Applications, Database Architecture, Database User and Administrators, Purpose and Advantages of Database Management System (Over File System).	8	25
2	<b>Database Design:</b> Role of DBA, Data Administrator v/s Database Administrator, Three levels Architecture of Database- external, conceptual and internal, mapping. Normalization, First Normal Form (1NF), Second Normal Form (2NF), Third Normal Form (3NF),	12	25
3	<b>E/R model:</b> Entity, Attributes, E-R Diagram, Relationship, Types of Relationship, Development stages of E-R Diagram, Case study of E-R Diagram	8	25
4	<b>Database Tools:</b> MS-Access, Objects: Introduction of MS-Access, Data type: Text, Number, Auto number, Currency, Boolean, Date/Time, Memo Objects: Table, Query, Forms, Reports, Macro. Controls use in form and report	12	25

**Text Books:**

1. C J Date, A Kannan, S Swaminathan, "An Introduction to Database Systems", 8th Edition, Pearson Education (2006).
2. Fundamentals of Database System By Elmasari & Navathe, 7th Edition, 2018, Pearson Education

**Reference Books:**

1. Silberschatz, Korth, Sudarshan, "Database System Concepts", 5th Edition, McGraw Hill Publication
2. S K Singh, "Database Systems : Concepts, Design and Applications", Pearson Education
3. An Introduction to Database Systems - C. J. Date - Pearson/Addison Wesley publisher
4. Microsoft Access Fundamentals – Rudy LeCorp-RGL publication

**List of Open Source Software/learning website:**

1. <https://www.tutorialspoint.com/dbms/index.htm>
2. <https://www.w3schools.in/dbms>

**E-Resource / Web Links:**

<http://inpics.net/tutorials/access/basics.html>

**Course Learning Outcomes (CLO): On completion of this course, the students will be able to:**

CLO	Description	Bloom's Taxonomy Level
CLO1	The fundamental elements of database management systems	2 Understanding
CLO2	Design ER-models to represent simple database application scenarios	1 Remembering 3 Applying,
CLO3	Familiar with basic database storage structures and access techniques: file and page organizations, indexing methods	2 Understanding, 3 Applying,
CLO4	Working on existing database systems, designing of database, creating relational database, analysis of table design.	3 Applying, 2 Understanding
CLO5	Ability to store information without unnecessary redundancy.	5,3, 4 Evaluate , , Applying, Analyze
CLO6	Effective transformation of the real-world data into the relational data model of the Database system and data retrieval.	6 Creating 5 Evaluate

**Mapping of CLOs with Pos & PSOs**

Course Learning Outcomes	Program Outcomes (POs)												PS O1	PSO 2
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12		
CLO1	M	M	L		M		L	M	L	M		M	H	M
CLO2	M	M	H			M	M			H	L	L	H	M
CLO3	H	M	H		M	M	M		L	M		H	L	M
CLO4	M		H	M	M	L	M	L	M		H	H	H	M
CLO5	H		M	M	M	M	L	H	H	M	H	H	H	L
CLO6	H	M						H	L	L	M	H	H	H

**H: High, M:Medium, L:Low**