Department of Computer Science
Lesson Plan Session 2025-2026
BACS Semester-III

Data Base Management System (C24COS301T)

July 2025 to November 2025	Topics
1st Week	Basic Introduction: Data, Information, Records, files and Database, Characteristics of database management system
2nd week	DBMS over file processing system, Advantages and disadvantages of DBMS, Database users and various types of DBMS users,
3rd Week	Database Administrator and responsibilities of DBA, Schema and instances, views of database, physical and logical data independence
4th Week	Database language, DBMS architecture, three schema database architecture.
5th Week	Data Models: Hierarchical, Network and relational data model
6th Week	Entity relationship model: Entity, Entity sets and entity types, attributes, Types of attributes
7th Week	Relationship- Relationship set, degree of relationship, Cardinality ratio, participation constraints
8th Week	ER- Diagram: Symbolic Notations for designing ER Diagram
9th Week	Relational Model: Relational model concepts (Domain, Attributes, Tuple, Relations, Characteristics of a relation)
10th Week	Keys: Super Key, Candidate Key, Primary Key, foreign Key,
11th Week	Constraints- Key Constraints, Domain Constraints, Referential Integrity
12th Week	Relational Algebra: Basic Operations Like Select, Project, Union, Intersection, Difference, Projection, Selection, Join.
13th Week	Relational Database Design: functional dependencies, Normal forms (1NF, 2NF, 3NF and BCNF)
14th Week	Decomposition, types of decomposition, properties of decomposition
15th Week	SQL: Introduction, Data types, DDL-Create, Alter and Drop table commands, DML-Select/FROM/WHERE, INSERT INTO/VALUES,
16th Week	UPDATE/SET/WHERE/ORDER BY/HAVING, DELETE commands
17th Week	Doubt Clearance