

GUJARAT TECHNOLOGICAL UNIVERSITY

Computer Engineering

M.E. Semester: IV

Subject Name: **Advanced Databases**

Sr. No.	Course Content
1.	Relational Databases: Relational Model - Querying - Storage Structures - Query Processing - Normalization.
2.	Object Oriented Databases: Introduction to Object Oriented Data Bases - Approaches - Modeling and Design - Persistence - Transaction -Concurrency - Recovery - Database Administration
3.	Emerging Systems: Enhanced Data Models - Client/Server Model - Data Warehousing and Data Mining - Web Databases – Mobile Databases.
4.	Current Issues: Rules - Knowledge Bases - Active and Deductive Databases - Distributed Databases and Parallel databases
5.	Database Design Issues: Security - Integrity - Consistency - Database Tuning - Optimization and Research Issues

Reference Books:

1. An Introduction to database systems –CJ.Date .Addison wisely
2. Databse system concepts, Abraham Silberschataz, Henry F. Korth & S. Sudarshan, Mc Graw Hill
3. Gary W. Hanson and James V. Hanson, Database Management and Design, Prentice Hall of India Pvt Ltd, 1999.
4. Alex Benson, Stephen Smith and Kurt Thearling, Building Data Mining Applications for CRM, Tata McGraw-Hill, 2000.
5. R. Elmasri and S.B. Navathe, Fundamentals of Database Systems, Addison Wesley, 2000.
6. N.Tamer Ozsü & Patrick Valduriez, Principles of Distributed Database Systems, Prentice Hall International Inc., 1999
7. Data Mining concepts and Techniques by Jiawei Han, Micheline Kamber –Elsevier.