

*Syllabus* : Data models with emphasis on the relational model; Database design with E-R model; Relational algebra and calculus; query Languages (specifically SQL); RDBMS design; File & system structure: indexed sequential, hashed, dynamic hashed, B-trees; Query processing; Concurrency control; error recovery; security; Case studies like ORACLE, Mysql, etc.; Introduction to Open Database Connectivity, Client-Server environment etc.

*Texts* :

1. A. Silberschatz, H. F. Korth and S. Sudarshan, Database System Concepts, 5/e, McGraw Hill, 2006
2. R. Ramakrishnan and J. Gehrke, Database Management Systems, 3/e, McGraw Hill, 2003

*References* :

1. Elmasri R, Navathe S B, Fundamentals of Database Systems, Benjamin Cummings Publishing Company, 1994.
2. ONeil P., Database : Principles, Programming, Performance, Morgan Kaufmann, 1994.
3. Theorey T J, Database Modeling & Design, 2/e, Morgan Kaufmann Publishers, 1994.
4. Melton J, Simon A R, SQL: A Complete Guide, Morgan Kaufmann Publishers, 1993.
5. H. GarciaMolina, J. D. Ullman and J. Widom, Database Sytems The Complete Book,1/e, Pearson Education, 2007