BIM301 DATA BASE MANAGEMENT SYSTEMS Credits 3

DBMS Concepts: Data Abstraction, Database System Architecture, Schemas and Subschemas, Physical Data Organization - Hashed, Index File, B-tree.
Data Models: Data Modeling using entity relationship, Basic concepts of Hierarchical and Network Model.
Relational Model: Relational algebra and calculus, Functional dependencies, Decomposition. Normal forms – first, second, third. BCNF.
Relational Query Language, Query Processing, Query Optimization- General Strategies of Optimization.
Basics concepts of SQL and SQL commands.
Introduction to Data mining: Data Warehousing, Applications of Data Mining.
Introduction to Big Data
.***Suggested Readings***

1. Date, C.J. Introduction to Database Systems (Vol I & II), 2004, 8th Edition. Addison-Wesley.
2. Ullman, J.D. 1989, Principles of Database and knowledge base Systems (Vol I & II), Computer Science Press New York.
3. Gio Wiederhold, 1997 Database Design, McGraw Hill.
4. Elmasri R. and Navathe S.B., 2007 Fundamentals of Database Systems. Fifth Edition.Pearson. Singh S.K., 2011 Database Systems- Concepts, Designs and Application. 2nd Edition. Pearson
5. Silberschatz A. Korth H. F. Sudarshan S., 2010 Database System Concepts. Sixth Edition. McGraw-Hill. Date K., Swamynathan S. 2012 An Introduction to Database Systems. Eight Edition. Pearson.