

Course Planner (Dr. Vandana Gupta)
B.Sc.(H) Computer Science - IV Semester
Database Management Systems
(Effective from Academic Year 2019-20)

Month	Topic	Chapter
January	Databases and Database Users	1
	Database System Concepts and Architecture	2
	Data Modeling Using Entity-Relationship (ER)	3 (except 3.8)
	Data Modeling using Enhanced Entity Relationship (EER) Model	4 (4.1 to 4.4)
	Introduction to SQL	6
	<i>Assignment, Presentations and quizzes</i>	
February	The Relational Data Model and Relational Database Constraints	5
	Relational Algebra	8 (8.1 to 8.5)
	SQL: Schema Definition, Constraints, Queries	6, 7 (7.1,7.3 and 7.4)
	Relational Database Design by ER and EER to Relational Database Mapping	9
	<i>Assignment, Presentations and quizzes</i>	
March	Basics of Functional Dependencies and Normalization for Relational Databases	14 (14.1 to 14.5), 15 (only 15.1)
	Indexing Structures for Files	17 (17.1 to 17.3) Concepts to be explained using examples, algorithms to be excluded
	<i>Assignment, Presentations and quizzes</i>	
April	Introduction to Transaction Processing, Concepts and Theory	20 (20.1 to 20.3)
	<i>Test, Revision, Doubt solving</i>	

References

1. Elmasri, R., & Navathe, S.B. (2015). *Fundamentals of Database Systems*. 7th edition. Pearson Education.

Additional Resources

1. Date, C. J. (2004). *An Introduction to database systems*. 8th edition. Pearson Education.
2. Silberschatz, A., Korth, H. F., & Sudarshan, S. (2010). *Database System Concepts*. 6th edition. McGrawHill