

Textbook chapters are listed with the associated topics.

Also consider the associated Links and References (Canvas, On-Line) provided in the class schedule.

Database Design

- **Ch 2: Relational Algebra**
 - Structure of Relational Databases
 - Database Schema
 - The Relational Algebra
 - Select
 - Project
 - Set Operators (union, intersection, and set-difference)
 - Join
 - Cartesian Product
 - Renaming
 - Division
- **Ch 6: Database Design Using The E-R Model**
 - The Entity-Relationship Model
 - Complex/Multi-valued Attributes
 - Mapping Cardinalities
 - Transfer ER to Relational Schema
- **Ch 7: Relational Database Design - Normalization**
 - Functional Dependencies (FDs)
 - Armstrong's Axioms
 - Normalization
 - Normal Forms (1NF, 2NF, 3NF, BCNF)