# SD-201: Database Concepts

**Description:**
**3 credits/126 hours**
**Prerequisite: None**

This course provides foundational concepts in database management and administration. It will introduce students to the concepts of data normalization, table relationships, and SQL among others. It explores emerging database concepts and trends through realistic and practical examples. Students will have a solid understanding of databases and the importance of a healthy database for other development projects.

**Textbook:** Concepts of Database Management, 10th ed., Friedrichsen, Ruffolo, Monk, Starks, Pratt, & Last– ISBN: 978-0-357-42209-0

**Course objectives:**
Throughout the course, you will meet the following goals:
- Define and describe basic database terminology and database management systems
- Develop an understanding of the relational database model
- Understand and utilize QBE, SQL, DBDL, and other advanced topics in database management
- Gain a working understanding of normalization and how it applies to databases
- Explore careers in database management and emerging topics in the database field

Contents:
Module 1: Introduction to Database Management
Module 2: The Relational Model: Introduction, QBE, and Relational Algebra
Module 3: The Relational Model: SQL
Module 4: The Relational Model: Advanced Topics
Module 5: Database Design: Normalization
Module 6: Database Design: Relationships
Module 7: Database Management Systems Process and Services
Module 8: Database Industry Careers
Module 9: Database Industry Trends

| Grading Scale (70% required for passing) | Grade Weighting | |
| --- | --- | --- |
| A = 90-100% | Chapter Quizzes…………. | 50% |
| B = 80-89.9% | Activities …………......... | 20% |
| C = 70-79.9% | Final Exam …………....... | 30% |
| F = Below 70% | | 100% |