

**J. Sargeant Reynolds Community College  
Course Content Summary**

**Course Prefix and Number:** ITD 250

**Credits:** 4

**Course Title:** Database Architecture and Administration

**Course Description:** Involves in-depth instruction about the underlying architecture of databases and the handling of database administration, including planning, controlling, monitoring, performance, trouble-shooting, and tuning of databases using Microsoft SQL Server.  
Prerequisite: ITD 130 or Information Technology academic department approval. Lecture 4 hours per week.

**General Course Purpose:** This course serves as an option for students who want to continue to learn database skills with Microsoft SQL Server. It can be used as an elective in the IST Computer Programmer and Internet Applications specializations and Computer Programmer and Internet Applications Career Studies Certificates with advisor approval.

**Course Prerequisites and Co-requisites:**

**Prerequisite:** ITD 130 or Information Technology academic department approval

**Course Objectives:**

Upon completing the course, the student will be able to

1. Configure a database;
2. Monitor database performance identifying problems;
3. Secure a database;
4. Tune a database; and
5. Backup and restore a database.

**Major Topics to Be Included:**

1. Database setup and configuration
2. Database architecture
3. Database trouble-shooting and performance
4. Database security
5. Database monitoring
6. Database performance and tuning
7. Database backup and recovery

**Effective Date of Course Content Summary:** May 15, 2015