J. Sargeant Reynolds Community College Course Content Summary

Course Prefix and Number: <u>ITD 132</u> Credits: <u>3</u>

Course Title: Structured Query Language (T-SQL)

Course Description:

Incorporates a working introduction to commands, functions, and operators used in SQL for extracting data from standard databases. Provides students with hands-on experience developing code, functions, triggers, and stored procedures for Microsoft SQL Server. Prerequisite: ITD 130 or equivalent. Lecture 3 hours per week.

General Course Purpose:

ITD 132 is a requirement for the Computer Programmer Career Studies Certificate and the Information Systems Technology AAS - Computer Programmer concentration. It is an IT elective for other students and an option for students who want to continue database skills with Microsoft SQL Server.

Course Prerequisites and Co-requisites:

Prerequisite: ITD 130 or equivalent

Student Learning Outcomes:

Upon completing the course, the student will be able to

- Create database tables and views;
- Use advanced SQL coding techniques;
- Create stored procedures:
- Create database functions;
- Create database triggers;
- Use database transactions;
- Create user-defined data types; and
- Use XML.

Major Topics to Be Included:

- Tables and views
- Code scripts
- Common-table expressions and temporary tables
- Using system functions
- Stored procedures
- System functions
- User-defined functions
- Triggers
- XML

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