J. Sargeant Reynolds Community College  
Course Content Summary

Course Prefix and Number: ITD 130  
Credits: 4

Course Title: Database Fundamentals

Course Description: Introduces the student to Relational Database and Relational Database theory. Includes planning, defining, and using a database; table design, linking, and normalization; and types of databases, database description, and definition. Additional topics cover the use of Entity Relationship (ER) modeling in detail through many real-life examples and practical business problems and solutions. After several iterations, the ER model captures the data requirements and business rules and forms a sound basis for the initial design of a relational database. The introduction to SQL allows for the implementation of a database design using SQL. Prerequisite: ITE 115 or school approval. Lecture 4 hours per week.

General Course Purpose:

Course Prerequisites and Co-requisites:  
Prerequisite: ITE 115 or school approval

Student Learning Outcomes:  
Upon completing the course, the student will be able to  
a. Identify the purposes and uses of databases;  
b. Capture business rules and constraints;  
c. Read, improve, create, use, and evaluate ER models; and  
d. Write basic SQL select statements.

Major Topics to Be Included:  
a. Introduction to databases  
b. Planning databases  
c. Data modeling/ER model  
d. Normalization  
e. Types of databases  
f. Structured Query Language (SQL)

Date Created/Updated (Month, Day, Year): August 15, 2018