

J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: ITD 130

Credits: 4

Course Title: Database Fundamentals

Course Description

Introduces the students to Relational Database and Relational Database theory. Includes planning, defining and using a database; table design, linking, and normalization; types of databases, database description and definition. Additional topics cover the use of Entity Relationship (ER) modeling in detail through many real life examples, 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.

Course Prerequisites/Corequisites

ITE 115 or school approval

Course Objectives

Upon completing the course, the student will be able to:

- a. Acquire an introduction to databases.
- b. Cover an overview and their uses.
- c. Capture business rules and constraints.
- d. Read, improve, create, use and judge Entity Relationship Models.
- e. Implement ER models into a physical database design.
- f. Acquire an introduction to SQL.

Major Topics to be Included

- a. Introduction to databases
- b. Planning databases
- c. Data Modeling/ ER model
- d. Normalization
- e. Types of databases
- f. Advanced Topics

Effective Date of Course Content Summary: 9/24/2008