

**Course Description:**

This is an introductory course to understanding how to work with a database. Correct database structure is very complex and differs greatly from spreadsheets. Students must understand how to correctly structure a database in order to fully utilize any database software and to design a functional database. The course provides the foundation necessary for a student to understand the material taught in the Access classes and to successfully utilize Access to its full potential.

**Duration:** Instructor-led, group-paced, classroom-delivery learning model with structured hands on activities  
3.5 hours (1/2 day)

**Course Objectives:** To gain an understanding of how databases work and how to correctly structure a database.

**Upon successful completion of this course, students will be able to:**

- Be familiar with database terminology
- Know the proper steps involved in planning and creating a database from start to finish
- Understand the basics of how to normalize a database and relate tables
- Understand one-to-one relationships and one-to-many relationships
- Recognize relationship rules and referential integrity

**Prerequisite:** Windows Experience

**Note:** This course is a prerequisite for all database classes taught at BCTI.

## Course Outline

<b>What is a Database?</b>	<b>Create Relationships between Tables</b>
<b>Purpose and Use of Databases</b>	<ul style="list-style-type: none"><li>• One to one</li><li>• One to many</li></ul>
<b>Database Terminology</b>	<b>Normalization</b>
<b>Importance of Correct Database Design an Structure</b>	<ul style="list-style-type: none"><li>• First normal form</li><li>• Second normal form</li><li>• Third normal form</li></ul>
<b>Similarities and Differences between Spreadsheets (Flat File Databases) and Relational Databases</b>	<b>Referential Integrity</b>
<b>Database Input and Output</b>	<b>Relationship Rules</b>
<b>Develop Tables</b>	
<ul style="list-style-type: none"><li>• Plan</li><li>• Organize</li></ul>	