

**DBA 110**  
**DATABASE CONCEPTS**

**COURSE DESCRIPTION:**

Prerequisites: None

Corequisites: None

This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms. Course Hours Per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

**LEARNING OUTCOMES:**

Upon completion of this course, the student will be able to:

- a. Identify database objects using correct database terminology.
- b. Create an Entity-Relationship Diagram to describe a database.
- c. Create a database file.
- d. Create and modify a table.
- e. Create and modify one-to-many relationships.
- f. Create and modify several types of forms.
- g. Create and modify several types of queries.
- h. Create and modify several types of reports.
- i. Validate data.
- j. Enter, edit, delete, and display data.

**OUTLINE OF INSTRUCTION:**

- I. Introduction to databases
  - A. Functions of a database
  - B. Terminology
  - C. Popular DBMS
  - D. Uses in business and industry
  
- II. Getting started
  - A. Opening the database
  - B. Application window
  - C. Menu bar
  - D. Status bar
  - E. Toolbar
  - F. Dialog box

### III. Creating a database

- A. Designing the database
- B. Creating a table structure
- C. The primary key
- D. Indexes
- E. Adding records
- F. The Table Wizard

### IV. Editing a database

- A. Modifying the table structure
- B. Adding or deleting records
- C. Inserting or deleting fields
- D. Changing column sizes
- E. Validating data

### V. Retrieving Information

- A. Finding records
- B. Using Queries
- C. Performing calculations
- D. Querying multiple tables

### VI. Presenting the data

- A. Designing reports
- B. Creating reports using Report Wizard
- C. Adding graphics to a report

### VII. Using forms

- A. Forms design
- B. Command buttons
- C. Managing database objects

## **REQUIRED TEXTBOOK AND MATERIALS:**

Text to be assigned by the instructor each semester

## **STATEMENT OF STUDENTS WITH DISABILITIES:**

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.