

# Computer Applications I

## Content Outline

### G. Databases

**Competency: 07 Use database software with alternative input devices**  
**Objective: 7.01 Demonstrate basic database concepts and functions**

- I. Design Databases
- II. Create Databases
  - A. Keyboard, menu commands
  - B. Other input devices
  - C. Views
- III. Create Database Tables
  - A. Field names
  - B. Data types
    - 1. Text
    - 2. Memo
    - 3. Date/time
    - 4. Auto-number
    - 5. Yes/no
    - 6. OLE object
  - C. Primary key field
  - D. Forms
  - E. Queries
- IV. Save
- V. Retrieve
- VI. Edit/update
  - A. Adjust field sizes
  - B. Add/remove fields
  - C. Add/delete records
  - D. Edit entries
- VII. Resave
- VIII. Print
  - A. Tables
    - 1. Landscape
    - 2. Portrait
  - B. Forms

**Competency: 07 Use database software with alternative input devices**  
**Objective: 7.02 Explain advanced database concepts and functions**

- I. Use Data
  - A. Retrieve
  - B. Filter/query
    - 1. Comparison operators
      - a. Equals =
      - b. Does not equal <>
      - c. Between and
      - d. Less than <
      - e. Greater than >
      - f. Less than, equal to <=
      - g. Greater than, Equal to >=
      - h. Text
    - 2. And/or
  - C. Search
  - D. Sort
    - 1. Ascending
    - 2. Descending
    - 3. Simple
    - 4. Complex
- II. Reports
  - A. Plan
  - B. Create
    - 1. Query/filter
    - 2. Group
    - 3. Sort
    - 4. Calculations
  - C. Modify
    - 1. Enhance with graphic elements
    - 2. Import pictures
  - D. Print
- III. Explain Relationship with Access

- IV. Create an Address Book
  - A. Plan
    - 1. Fields
      - a. Names
      - b. Address
      - c. Phone
      - d. Email
  - B. Create
    - 1. Table
    - 2. Form
      - a. Add pictures
      - b. Arrange fields
  - C. Design reports
    - 1. Sort
    - 2. Query
- V. Print Reports

**Competency: 07 Use database software with alternative input devices**  
**Objective: 7.03 Demonstrate advanced database concepts, functions, and integration techniques with other applications.**

- I. Utilize Data
  - A. Retrieve
  - B. Filter/query
    - 1. Comparison operators
      - a. Equals =
      - b. Does not equal <>
      - c. Between and
      - d. Less than <
      - e. Greater than >
      - f. Less than or Equal to <=
      - g. Greater than or Equal to >=
    - 2. And/or
  - C. Search
  - D. Sort
    - 1. Ascending
    - 2. Descending
    - 3. Simple
    - 4. Complex
- II. Reports
  - A. Plan
  - B. Create
    - 1. Query/filter
    - 2. Group
    - 3. Sort
    - 4. Calculations
  - C. Modify
    - 1. Enhance with graphic elements
    - 2. Import pictures
  - D. Print
- III. Create an Address Book
  - A. Plan
    - 1. Fields
      - a. Name
      - b. Address
      - c. Phone
      - d. Email
  - B. Create
    - 1. Table
    - 2. Form
      - a. Add images
      - b. Arrange fields

- C. Design a report
  - 1. Query
  - 2. Sort
- D. Print a Report
- E. Demonstrate Integration Techniques with Other Applications

**Competency: 07 Use database software with alternative devices**  
**Objective: 7.04 Complete a database cornerstone project applying integration techniques with other applications.**

- I. Plan documents that integrate database, digital communications, spreadsheet, and word processing/desktop publishing applications.
- II. Research the Internet
  - A. Information technology career opportunities
  - B. Educational requirements.
  - C. North Carolina schools
    1. Universities
    2. Technical/community colleges
- III. Complete a Database
  - A. Fields
    1. School
    2. Address
    3. Programs of study
    4. Projected program cost
    5. Distance from home school
  - B. Query
    1. Educational costs
    2. Distance from home/school
  - C. Create a spreadsheet
  - D. Chart selected schools and costs
- IV. Prepare a newsletter describing an information technology career including chart of NC schools/costs to achieve this career.