CIS 117   Database Management Software Applications

I. CIS 117 Database Management Software Applications – 3 Semester Hours

II. Course Description
This course provides students with hands-on experience using database management software. Students will develop skills common to most database management software by developing a wide variety of databases. Emphasis is on planning, developing, and editing functions associated with database management.

III. Prerequisite
CIS 146 or database experience

IV. Textbook
Textbook: New Perspectives on Microsoft Office Access 2013 Comprehensive
Publisher: Course Technology
Author: Adamski and Finnegan

V. Course Objectives
1. Explain the system and hardware associated with database management applications.
2. Create a basic database.
3. Use tables to organize the database.
4. Manage a database.
5. Perform database queries.
6. Use forms to manage data.

VI. Course Outline of Topics
1. Explain the system and hardware associated with database management applications.
    a. Define terms associated with the computer system.
    b. Explain the function of hardware devices.
    c. Identify elements of the graphical user interface.
    d. Explain the process of launching and exiting programs.
    e. Explain various methods of file management.
2. Create a basic database.
    a. Explain the use of a database.
    b. Define terms associated with a database.
    c. Identify parts of the database window.
    d. Explain the function of objects in a database.
    e. Explain the importance of planning the database.
    f. Explain the process of creating and saving a blank database.
    g. Explain the process of opening an existing database.
3. Use tables to organize the database.
    a. Explain the process of creating a table.
    b. Explain the process of editing an existing table's structure.
    c. Explain the process of updating data in an existing table.
    d. Explain the function of various edit features.
    e. Explain various processes of sorting records.
    f. Explain various processes to filter records.
    g. Explain various processes to add tables to a database.
    h. Explain the importance of validating data.

       i.   Explain various processes to validate data.
       j.   Explain the process of creating data relationships.
4. Manage a database.
    a.   Explain the importance of backing up a database.
    b.   Explain the process of backing up and restoring a database.
    c.   Explain various methods of compacting a database.
    d.   Explain various methods of repairing a database.
    e.   Explain the process of converting a database to another database type or version.
    f.   Explain the process of replicating a database.
    g.   Explain the process of setting database security.
    h.   Explain the process of enhancing database performance.
    i.   Explain the process of documenting a database.
5. Perform database queries.
    a.   Explain the function of queries.
    b.   Explain various processes to create queries.
    c.   Explain criteria for conducting a query.
    d.   Explain sorting.
    e.   Explain calculated fields and functions.
    f.   Explain the process for conducting various types of queries.
6. Use forms to manage data.
    a.   Explain the use of forms.
    b.   Explain various processes to create and save forms.
    c.   Explain various processes to add data using a form.
    d.   Explain various processes for finding and replacing data using a form.
    e.   Explain calculated fields and functions in forms.
    f.   Explain various processes to create and modify a subform.
7. Create and modify reports.
    a.   Explain the use of reports.
    b.   Explain various processes to create and save reports.
    c.   Explain various processes to create and modify a subreport.
    d.   Explain various processes to sort and group data.
    e.   Explain calculated fields and functions in reports.
    f.   G1.1.6 Explain various processes to create mailing labels.
8. Use switchboards when working with a database.
    a.   Explain the use of switchboards.
    b.   Explain various processes to create and save switchboards.
    c.   Explain various processes to modify a switchboard page.

VII. Evaluation and Assessment
Evaluation and assessment will be determined by the instructor and specified on the instructor's class syllabus. Grades will be based upon following scale: A = 90 − 100%, B = 80 − 89%, C = 70 − 79%, D = 60 − 69%, and F = below 60%.

VIII. Attendance
Students are expected to attend all classes for which they are registered. Students who are unable to attend class regularly, regardless of the reason or circumstance, should withdraw from that class before poor attendance interferes with the student's ability to achieve the objectives required in the course. Withdrawal from class can affect eligibility for federal financial aid.

IX. Statement on Discrimination/Harassment
The College and the Alabama State Board of Education are committed to providing both employment and educational environments free of harassment or discrimination related to an individual's race, color, gender, religion, national origin, age, or disability. Such harassment is a

violation of State Board of Education policy. Any practice or behavior that constitutes harassment or discrimination will not be tolerated.

X. **Americans with Disabilities**
The Rehabilitation Act of 1973 (Section 504) and the Americans with Disabilities Act of 1990 state that qualified students with disabilities who meet the essential functions and academic requirements are entitled to reasonable accommodations. It is the student's responsibility to provide appropriate disability documentation to the College. The ADA Accommodations Office is in FSC 305 (205-856-7731).