Course Description
BE 180. Microcomputer Applications I – Database. 1 hour credit. Prerequisite: Basic computer skills. This course will enable the student to become productive using current "off the shelf" database application software. The student will learn to operate the application's functions and commands and develop skills needed to use the software productively in the workplace.

Required Materials


Storage device

* - For complete textbook information, refer to https://bookstore.butlercc.edu

Supplemental Materials
Microsoft Office 2013 Professional, University, or 365 (This includes Microsoft Word, Excel, and Access).

Butler-assessed Outcomes
The intention is for the student to be able to:
1. Use database and Windows application features to complete assigned tasks.

Learning PACT Skills that will be developed and documented in this course
Through involvement in this course, the student will develop ability in the following PACT skill area(s):

Technology Skills
General computer use - Through a variety of activities, the student will utilize current Microsoft Office software to create, store, retrieve, and modify files to produce and disseminate database management objects.
Major Summative Assessment Task(s)
These learning outcome(s) and the Learning PACT skill(s) will be demonstrated by:
1. Completing computer generated tasks by an assessment program to proficiently demonstrate the student’s ability to solve problems using database software applications.

Skills or Competencies
Actions that are essential to achieve the course outcomes:
1. Structuring a database
2. Creating and formatting database elements
3. Entering and modifying data
4. Creating and modifying queries
5. Presenting and sharing data

Learning Units
I. Getting started with Microsoft Access
   A. Understand relational databases
   B. Explore a database
   C. Create a database
   D. Create a table
   E. Create primary keys
   F. Relate two tables
   G. Enter data
   H. Edit data

II. Building and using queries
   A. Use the query wizard
   B. Work with data in a query
   C. Use query design view
   D. Sort and find data
   E. Filter data
   F. Apply and criteria
   G. Apply or criteria
   H. Format a datasheet

III. Using forms
   A. Use the form wizard
   B. Create a split form
   C. Use form layout view
   D. Add fields to a form
   E. Modify form controls
   F. Create calculations
   G. Modify tab order
H. Insert a image

IV. Using reports
   A. Use the report wizard
   B. Use report layout view
   C. Review report sections
   D. Apply group and sort orders
   E. Add subtotals and counts
   F. Resize and align controls
   G. Format a report
   H. Create mailing labels

V. Modifying the database structure
   A. Examine relational databases
   B. Design related tables
   C. Create one-to-many relationships
   D. Create lookup fields
   E. Modify short text fields
   F. Modify number and currency fields
   G. Modify date/time fields
   H. Modify validation properties
   I. Create attachment fields

VI. Improving queries
   A. Create multi-table queries
   B. Apply sorts and view SQL
   C. Develop or criteria
   D. Create calculated fields
   E. Build summary queries
   F. Build crosstab queries
   G. Create a report on a query

Learning Activities
Learning activities will be assigned to assist the student to achieve the intended learning outcome through instructor-led demonstration and class discussion, drills/skill practice, and other activities at the discretion of the instructor.

Grade Determination
The student will be graded on learning activities and assessment tasks. Grade determinants may include the following: daily work, quizzes, lesson or unit tests, comprehensive examinations, projects, and other methods of evaluation at the discretion of the instructor.