AUSTIN COMMUNITY COLLEGE
CONTINUING EDUCATION

INTRODUCTION TO DATABASE/FILE MANAGEMENT
(Access Introduction)

(12 hours)

ITSW 1053

COURSE SYLLABUS

Course Description: Learn how to design and complete a working database system using this popular software. An introduction to database concepts including: Program parameters, data dictionary, optional field characteristics, calculations, constant default values, data entry form design, database organization, and report generation. Topics include creating tables, forms, queries and reports. Prerequisites: Fundamentals of PC Use, including Orientation to Windows, or equivalent experience.

Objectives: Every student will be able to:

- Discuss database concepts
- Start MS Access application
- Identify parts of the screen
- Open and close a database
- Identify database objects
- Describe steps involved in designing a database
- Design a database
- Create tables in design view
- Create tables using a wizard
- Navigate in a table
- Modify table design
- Work with filed properties, validations, input masks
- Find information in tables using filters
- Create, delete, and modify relationships
- Create and use queries
- Query a database
- Design data entry forms and reports
- Print database objects

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Rationale: MS Access is one of the most popular database programs used in the business community. This course will enable students to efficiently use this application.

Required Material: None

Type of Course: Short Course

Evaluation: Students will be evaluated on their competency in performing a variety of hands-on exercises throughout the course. In order to grant CEU credit for a course the students must be able to complete assessment exercises for each part of the course given by the instructor. The instructor will validate each participant's achievement of the course objectives by signing and awarding individual certificates of completion.

Course Outline:

1. DATABASE CONCEPTS
    1.1.   What Is A Database?
    1.2.   Database Examples
    1.3.   What Is A Relational Database?
    1.4.   What Is A Table?
    1.5.   What Is A Record (Row)?
    1.6.   What Is A Field (Column)?
    1.7.   What Is Data?
    1.8.   The Difference Between Data And Information
    1.9.   Data Types
    1.10.   Common Uses Of Large-Scale Databases
    1.11.   Keeping Data Discrete
    1.12.   Each Field Should Contain Only One Item
    1.13.   Database Designers, Database Administrators And Database Users

2. OPENING A DATABASE & SECURITY ISSUES
    2.1.   Opening A Database Within Your Samples Folder
    2.2.   Trusted Locations – Using The Trust Centre
    2.3.   Setting The Default Folder Location Within Access
    2.4.   Closing The Access Program

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3. TABLES, FIELDS AND FIELD TYPES
    3.1.   Creating A New Blank Database
    3.2.   Adding Fields And Setting The Field Type
    3.3.   About Access Data Types
    3.4.   Closing And Naming A Table

4. TABLE NAVIGATION & MODIFICATION
    4.1.   Opening A Table Within A Database
    4.2.   Switching Between 'Datasheet View' And 'Design View'
    4.3.   Adding Records To A Table
    4.4.   Saving Changes Made To A Table
    4.5.   Navigating Through Records Within A Table
    4.6.   Adjusting Column Width
    4.7.   Automatically Resizing A Column Width To Fit Contents
    4.8.   Moving A Column To Rearrange The Column Order

5. FIELD PROPERTIES
    5.1.   Field Properties
    5.2.   Input Masks
    5.3.   Validating Numbers
    5.4.   Validating Dates   6
    5.5.   Data Entry Required / Not Required
    5.6.   Field Properties – Reference Materials
    5.7.   Field Properties – Logical Operators
    5.8.   Field Properties – Validation Rule Examples
    5.9.   Field Properties – General
    5.10.   Field Properties – Format
    5.11.   Field Properties – Input Mask Characters
    5.12.   Field Properties – Input Mask Examples

6. MANIPULATING TABLES & RECORDS
    6.1.   Renaming A Table
    6.2.   Editing Data Within A Record
    6.3.   Deleting Data Within A Record
    6.4.   Using The Undo Command
    6.5.   Deleting A Single Record
    6.6.   Deleting Multiple Records

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14. REPORTS
    14.1.   What Are Reports?
    14.2.   Creating A Simple Report
    14.3.   Using The Report Wizard
    14.4.   Modifying The Layout Of A Report
    14.5.   Widening A Report Column
    14.6.   Modifying The Report Title
    14.7.   Adding A Logo To A Report
    14.8.   Formatting A Form Using Themes
    14.9.   Modifying Field Names Within A Report
    14.10.   Inserting And Formatting The Date & Time
    14.11.   Adding Existing Fields To A Report
    14.12.   Resizing Reports For Printing
    14.13.   Totals
    14.14.   Closing A Report
    14.15.   Deleting A Report

15. PRINTING
    15.1.   Considerations Before Printing
    15.2.   Print Previewing
    15.3.   Which Orientation, Portrait Or Landscape?
    15.4.   Adjusting Layout In Print Preview
    15.5.   Setting Margins
    15.6.   Printing A Complete Table
    15.7.   Printing Selected Records
    15.8.   Printing A Query Or Reports
    15.9.   Printing Forms

16. REFERENCE: THE ACCESS 2010 INTERFACE
    16.1.   Opening The Access 2010 Program
    16.2.   Opening A Database Within Your Samples Folder
    16.3.   Opening A Table
    16.4.   The Ribbon (Toolbar)
    16.5.   Ribbon Tabs
    16.6.   Groups
    16.7.   Dialog Box Launcher

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