

**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 field 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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- 6.7. Using Save As To Back Up The Database Using A Different File Name
- 6.8. Deleting A Table
- 7. PRIMARY KEYS AND INDEXING
 - 7.1. Defining A Primary Key
 - 7.2. Indexing - Reference Notes
 - 7.3. Creating A Single-Field Index
 - 7.4. Creating A Multiple-Field Index
 - 7.5. Deleting Multi-Field Indexes
- 8. FILTERING
 - 8.1. Text Filters
 - 8.2. Applying A Single Filter
 - 8.3. Clearing A Single Filter
 - 8.4. Creating Multiple Filters
 - 8.5. Clearing Multiple Filters
- 9. SORTING
 - 9.1. Sorting Records A-Z
 - 9.2. Sorting Records Z-A
 - 9.3. Removing A Sort
 - 9.4. Sorting On Multiple Fields
- 10. SEARCHING
 - 10.1. Searching Through Records
- 11. RELATIONSHIPS
 - 11.1. Table Relationships
 - 11.2. One-To-Many Relationship
 - 11.3. Many-To-Many Relationship
 - 11.4. One-To-One Relationships
 - 11.5. Creating Relationships Between Tables
 - 11.6. About Referential Integrity
 - 11.7. Enabling Referential Integrity
 - 11.8. Cascade Options
 - 11.9. Cascade Update Related Fields
 - 11.10. Cascade Delete Related Records
 - 11.11. Enabling Cascade Options

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11.12. Deleting Relationships

12. FORMS

- 12.1. Forms Overview
- 12.2. Creating Forms
- 12.3. Modifying Forms
- 12.4. Modifying A Form Title
- 12.5. Changing A Form Logo
- 12.6. Modifying A Form Label
- 12.7. Saving A Form
- 12.8. Form View
- 12.9. Adding And Formatting Attachments
- 12.10. Modifying Data Within Records
- 12.11. Deleting Records Using A Form
- 12.12. Adding Records Using A Form
- 12.13. Adding Or Deleting Text In A Record Using A Form
- 12.14. Closing Forms
- 12.15. Opening Forms
- 12.16. Deleting A Form
- 12.17. Filtering A Form
- 12.18. Removing A Filter From A Form
- 12.19. Inserting And Modifying A Form Header
- 12.20. Inserting And Modifying A Form Footer

13. QUERIES

- 13.1. What Are Queries?
- 13.2. Creating A Query
- 13.3. Adding (And Removing) Criteria To A Query
- 13.4. Running A Query
- 13.5. Editing Criteria In A Query
- 13.6. Saving A Query
- 13.7. Creating A Two Table Query And Sorting The Results
- 13.8. Refining Your Query
- 13.9. What Are Wildcards?
- 13.10. Deleting A Query
- 13.11. Hiding And Un-Hiding Fields Within A Query

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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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- 16.8. Navigating - Quick Keys (Shortcut Keys)
- 16.9. Navigating – Pointer Keys & Quick Keys
- 16.10. Contextual Tabs
- 16.11. Minimizing The Ribbon
- 16.12. The File Tab
- 16.13. Microsoft Access Help
- 16.14. Closing Access 2010