

## Introduction, 2 Days

### Course Description

This course provides the first step in learning how to use this powerful database program. The objective is to provide participants with an understanding of Table design, entering data, and building Queries to manipulate data. Forms and Reports are briefly introduced using the Wizards provided.

Most Access users will need the Intermediate level 1 course for a detailed look at reports and forms, and to learn how to create a relational database.

### Prerequisites

Participants should already be familiar with basic Windows use. No prior experience with Access is necessary.

### Topics Covered

#### Overview

What is a Database?  
Database Objects in Access  
Creating / Opening Databases

#### Tables (Design View)

Creating a Table  
Adding Fields  
Field Data Types  
Saving  
Insert Fields  
Moving Fields  
Change Field Name  
Change Field Data Type  
Working with Attachments (2007 only)  
Field Size  
Format & Decimal Places  
Default Value  
Caption  
Validation Rule/Text  
Required  
Allow Zero Length  
Indexed  
Input Mask

#### Tables (Datasheet View)

Entering Data  
Adding Pictures  
Zoom and Line Breaks

Column Widths/Row Height  
Navigating Records  
Formatting Cells  
Hiding Columns  
Freezing Columns  
Cut, Copy & Paste  
Deleting Records  
AutoNumbers  
Sorting  
Finding  
Filter by Selection  
Text Filters, Number Filters,  
Date Filters (2007 only)  
Filter by Form  
Save Filter as Query

#### Queries

Creating Queries  
Adding Fields to Grid  
Entering Criteria  
Running a Query  
Sorting and Hiding  
Saving a Query  
Moving Columns  
Performing Calculations  
Formatting Columns  
Parameter Queries  
Totals Queries

#### Forms

AutoForms  
Split Forms (2007 only)  
Design & Form Views  
Layout View (2007 only)  
Moving/Sizing Controls  
Edit Text Labels  
The Form Header/Footer  
Entering Data in the Form

#### Reports

AutoReports  
Report Bands  
Adjusting Controls  
Merging Fields  
Previewing and Printing

#### Database Objects

Rename Objects  
Making a Copy  
Deleting Objects

## Intermediate Level 1, 3 Days

### Course Description

This course builds on the two-day Introduction course. The objective is to learn enough about Access to start developing databases. The Introduction course begins this process by seeing how to create tables and queries. This course illustrates how to create a relational database and how to design forms and reports.

### Prerequisites

It is essential that you are familiar with all Introduction topics before taking this course. There is no review of creating tables or creating queries here and the prior knowledge of these topics is required during this course.

### Topics Covered

#### Creating Forms

- Creating a Form
  - Using the Wizard
  - Creating a Form from Scratch
  - Add Text
  - Add Fields & Formulas
  - Add a Picture/Drawing
  - What are Controls?
  - Select Boxes
  - Move and Size Controls
  - Align Controls and the Different Views
  - Basic Formatting
  - Using the Colour Icons
  - Spacing Between Objects
  - Delete Objects
  - Cut, Copy, Paste
  - Copy Formats
  - Bring to Front/Send to Back
  - The Toolbox
  - Tab Order
  - Print
  - Forms Based on Multiple Tables
- Control Properties
  - Name
  - Control Source
  - Default Value
  - Validation Rule, Validation Text
  - Format, Decimal Places
  - Custom Date Formats
  - Input Mask
  - Status Bar Text & Control Tip
  - Enabled & Locked
  - Tab Stop
- Combo Boxes
  - Type 1 - You Type a List of Choices
  - Type 2 - Display Data from a Table
  - Type 3 - Display from Master Table, Store in Related Table (Linked)

- Working with Bands/Form
  - Change the Background Colour
  - Rulers/Grid
  - Form Properties
- Command Buttons
  - Creating with the Wizard
- Subforms
  - Add to Main Form
  - About Child Fields and Master Fields
  - Edit a Subform from within the Main Form

#### Relating Tables

- Why Relate Tables?
- How to Relating Tables
- Referential Integrity
- Cascade Update/Delete
- Testing the Relationship
- Edit and Delete Relationships
- Primary Keys and Unique Indexing
- See Related Data in a Table

#### Creating Reports

- All Applicable Forms Topics, plus:
  - Wizards, Creating a Blank Report
  - Print Preview vs. Layout Preview
  - Page Setup
  - Report Bands & Band Properties
  - Sorting and Grouping
  - Calculations in a Report
  - Envelopes
  - Label Wizard

#### Import, Export, & Link

- Importing and Linking Tables
- Exporting Tables or Queries
- Word Merge

## Intermediate Level 2, 2 Days

### Course Description

This two-day course picks up where the Intermediate Level I leaves off. The objective is to become more comfortable with relating tables, as well as looking further at forms, reports and queries.

### Prerequisites

It is *essential* that you take the Intermediate Level I course first – this course assumes knowledge of all Intermediate Level I topics.

### Topics Covered

#### Tables & Database

##### Tables

Review of Referential Integrity  
1 to 1 Relationships  
Self-joins  
Join Lines  
Join Types  
Multiple Field Primary Keys  
Lookup Tables  
Combo Boxes in Tables

##### Database Analysis

Analyze Tables  
Analyze Performance  
Documenter

#### Forms

##### Creating Pop Up Forms (Dialog Boxes)

Border Styles  
Setting Properties

##### Sub Form Totals

Create Formula in Datasheet Form  
Add Formula to Main Form  
Protecting Formulas

##### Bound Options Groups

Creating an Option Group  
Modifying & Formatting

##### Bound List Boxes

Creating using the Wizard  
Formatting the List Box  
Switching to a Combo Box  
From Combo Box to List Box

##### The Tab Control

Creating a Tab Control  
Adding Fields & Formulas  
Moving Control to Pages  
Changing Page Order  
Adding & Deleting Pages  
Formatting Pages

##### Control Defaults

For Objects Already on Form  
Setting Defaults Before Add Field  
Format Template  
Properties

##### Form Properties

Edits, Deletions, Additions  
Data Entry  
Caption  
Shortcut Menu  
Pictures  
Grid X/Y  
Background Picture  
Cycle

##### Page Breaks & Form Printing

Page Breaks  
Page Headers/Footers  
White Background Printing

##### Continuous Forms

Adding and Aligning Fields  
Adding Formulas  
2 Line Labels  
Continuous View  
Format to Resemble Datasheet  
Dividing Lines  
Form Header/Footer  
Continuous vs. Datasheet

#### Reports

##### Multi-Column Reports

Sorting & Grouping  
Grouping Tricks  
Setting Up Columns  
Adding Fields  
Adding Column Headings

##### Review of Mail Merge

Quick Review of Word Merge

##### Letters in Access

Writing the Letter  
Inserting the Fields  
Formatting the Letters  
Limitations

##### Sub Reports

Designing a Sub Report  
Designing a Main Report

##### Graphs

Using the Chart Wizard  
Arranging the Chart  
Setting Summary Formulas  
Formatting the Chart  
Using MS Graph

## Queries, 2 Days

### Course Description

This course takes a close look at Access Query building. We start with basic query concepts (review from Introduction), then look at some of the more advanced query features.

### Prerequisites

This course is meant for someone with a solid understanding of Access basis (Introduction topics), as well the ability to create forms and reports (we do not cover in this course how to create forms or reports, but this knowledge is necessary in order to fully understand some of the topics covered here).

### Topics Covered

#### Basic Query Design

- Creating a Query
- Adding Fields
  - One at a Time
  - In Sequence
  - At Random
  - All Fields
  - All Fields Except 1 or 2
  - Using the \*
  - Output All Fields
- Clearing the Grid
- Running a Query
- Return to Design View
- Sorting and Rearranging Columns
- Preventing Data Changes
- The Show Row
- Entering Criteria
  - Number/Currency Fields
  - And vs. Or
  - Multi-line Criteria
  - In() and Not In()
  - Using Wildcards
  - Text Ranges
  - Dates
  - Yes/No Fields
  - Null and Not Null
  - Adding Parameters
  - Using Like in a Parameter
- Adding Columns
  - Concatenating Fields
  - Adding Numeric Formulas
  - Calculating Time Durations
  - Formatting Formulas

- Creating Totals Queries
- Creating Update Queries
- Creating Delete Queries

#### Other Query Types

- Crosstab Queries
  - Why a Crosstab?
  - Setting Column, Row & Value
  - Grouping Options
  - Entering Criteria
- Make Table Queries
- Append Queries

#### Relationships in Queries

- Join Types in Queries
- Query Level Relationships

#### Union Queries

- What is a Union Query?
- Writing Basic SQL
- Creating the Union Column
- Sorting
- Column Names
- Setting Criteria
- Using Parameters
- Showing Duplicates

#### Forms & Reports Based on Queries

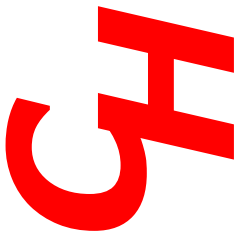
- Determining Sort Order
- Adding Parameters
- Based on an SQL Statement
- Saving SQL as a Query

#### Creating Criteria Dialog Box

- Creating the Form
- Adding Unbound Controls
- SQL in Combo Boxes
- DMin & DMax
- Pop Up/Dialog
- Adding Command Buttons
- Creating the Query
- Adding Referencing Criteria
- Testing the Dialog Box

#### Synchronizing Combo Boxes

- Using Customer/Contact Combo
- Manual Synchronizing
- Automatic Synchronizing



## Advanced, 3 Days

### Course Description

This course takes an in-depth look at macros, securing a shared database and using functions.

### Prerequisites

Participants should be familiar with form design, tables, and queries (Introduction and Intermediate Level I topics). It is *not* necessary to take Intermediate Level 2 or Queries before this course.

### Topics Covered

#### Security

- Creating a Workgroup File
- Creating Users & Groups
- Placing Users in Groups
- Setting User Passwords
- Owning the Database
- Opening Exclusively
- Setting Permissions
- Testing Permissions
- Query Permissions
- Permissions for Other Objects
- Creating a User Table
- Setting a Database Password
- User Level Security Wizard

#### Access Command Line Options

- Load a Database Automatically
- Startup Picture
- Default User Login
- Default Password
- Default Workgroup
- No Shortcut Icon?

#### Built-in Functions

- Database References
- Date Functions
  - Year
  - Month
  - Day
  - Weekday
  - Date
  - Now
  - DateSerial
- Special Functions
  - IIF
  - Switch
  - IsNull
  - Format
  - Eval
  - CurrentUser
  - CurentObjectName

#### Text Functions

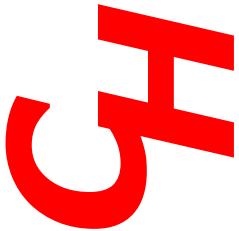
- Left
- Mid
- Right
- Chr
- InStr
- UCase
- LCase
- Domain Functions
  - DAvg
  - DMax
  - DMin
  - DSum
  - DCount
  - DLookup

#### Creating Macros

- Delete Buttons (with Wizard)
- Close Buttons (with Wizard)
- Creating a Macro
- Macro Object vs. Macro Names
- Selecting Actions
  - OpenForm
  - OpenReport
  - MsgBox
  - Maximize
  - StopMacro
  - GoTo Control
  - Stop Macro
  - GoToRecord
  - Run Command
  - PrintOut
  - SetValue
  - RunMacro
  - ShowToolbar
  - FindRecord
  - ApplyFilter
  - ShowAllRecords
- Adding Where Conditions
- Using the Conditions Column

#### Special Macro Types

- SendKeys
- AutoKeys
- AutoExec
- Database Startup Settings
- Customizing Toolbars**
  - Editing Toolbars
  - Adding & Removing Icons
  - Resetting a Toolbar
  - Creating a Toolbar
  - Adding Icons
  - Icons to Open Objects
  - Editing Icons
  - Macros Icons
  - Copy a Icon Image
  - Assigning a Toolbar to a Form
  - Converting Macros to Toolbars
- Customized Menus**
  - Creating a Menu Bar
  - Creating the Menus
  - Displaying & in Menus
  - Fly-Out Menus
  - Adding Commands
  - Attaching a Menu to a Form
  - Attaching a Menu to a Report
  - Converting Macros to Menus
- Compact, Repair & Encrypt**
  - Compacting/Repairing a Database
  - Compacting Database on screen
  - Making a Compacted Copy
  - Encrypting a Database
- Switchboard Manager**
  - Creating a Switchboard
  - Setting it to Open Automatically
  - Editing a Switchboard
  - Going beyond the 8 Button Limit
- Unbound Forms & Reports**
- Changing Next AutoNumber**



## VBA Programming Level I, 3 Days

### Course Description

This course provides an introduction to the Visual Basic programming language, used through Access.

### Prerequisites

This course assumes a prior knowledge of creating tables, reports, queries, forms and macros. The entire course is devoted to writing code, which requires an solid understanding of Access. No previous Visual Basic or other programming language knowledge is needed.

### Topics Covered

#### Overview

- Macros vs. Code
- Module Types
- Understanding Events

#### Events

- Click
- BeforeUpdate
- AfterUpdate
- NotInList
- Close Events
- Open Events
- Delete Events
- Cancel Events
- Form Current

#### Procedures & Modules

- Understanding Wizard Code
- Module Window
- Deleting Procedures
- Comments
- About Control & Object Names
- Procedure Level Variables
- Creating General Procedures
- Creating Database Modules
- Debug/Immediate Window
- Intrinsic Constants

#### Commands

- Closing Objects
- Setting Values in Controls (text, numbers, formulas)
- If, Else, Elseif, Endif
- Select Case
- Displaying a MsgBox
- SendKeys
- Delete Records
- Showing/Hiding Controls
- Setting Control Properties
- Calling Procedures
- Passing Parameters
- Setting Input Masks
- Find Combo Box
- Email Command Button
- Moving Through Records
- Requery Controls
- Referencing Forms
- Is a Form Open?
- Error Handling
- Case vs. If
- Null vs. ""
- Creating Labels

#### Functions

- MsgBox()
- CurrentUser()
- Format()
- IsNull()
- Dlookup()
- Dmax()
- DCount()
- InputBox()

## VBA Programming Level II, 3 Days

### Course Description

This course picks up on where the VBA Level 1 course leaves off. Here we look at: working with recordsets, debugging code, creating custom functions, error handling, and creating dialog boxes that drive reports and query forms.

### Prerequisites

It is essential that you have a solid understanding of all Access VBA Level 1 topics before taking this course. There is no review of the level 1 topics.

### Topics Covered

#### Database Code

- Opening a Report
- Writing Code in a Report
- Public Variables
- PopUp Forms (Dialog Boxes)
- MultiSelect List Boxes
- Select All Items in List Box
- Clear List Box Selections
- For...Each...Next
- In(), Len(), Left() Functions
- Filter Dialog Box
  - Make a Dialog Box Generic
  - The Filter Properties
  - The Tag Property
  - For...To...Next
  - Chr() Function
  - Building String Where Condition
- Changing a Group of Controls
  - Using Toggle Buttons
  - Setting Control Properties
  - With...End With
  - The Controls Collection
  - For...Each...Next
- Running a Query in Code
- Running a SQL Statement in Code
- Convent Macros to Code
- About Bound Columns (Combo/List)
- More about the Module Window
- More About MsgBox()

#### DAO & Custom Functions

- Do...Loop
- DAO Topics
  - Opening a Recordset
  - Recordset Types
  - Using Properties & Methods
  - Adding Values to a Combo Box
  - Moving through a Recordset
  - Evaluating Each Record
  - Transaction Tracking
  - Adding, Editing, Deleting Records
  - Finding Records
  - Printing to Immediate Window
  - Opening Two Recordsets
  - Copy Data Between Recordsets
  - Creating a Recordset Subset
  - Recordset Clones
  - Bookmarks
- Custom Functions
  - Creating a Simple Function
  - Using a Function in the Database
  - Data Types
  - Adding Parameters to Functions
  - Optional Parameters
  - Using in Place of "nested IIFs"
- Stepping Through a Procedure
  - Debug Toolbar
  - Using the Debug/Locals Window
  - Setting a Breakpoint
  - Executing Commands
- Calendar Control (Active X)
- Progress Bar (Active X)
- Understanding References