

Microsoft®

Access 2016

Certification Guide

Courseware 3265 Exam 77-730 ISBN 978-1-55332-479-9

Course Description

This *Microsoft® Access 2016 Certification Guide* teaches students how to design, create, and manage databases. Students will design tables, select appropriate data types, and create logical relationships. They will also create and manage queries, forms, and reports, and will use techniques to streamline data entry, maintain data integrity, and analyze data.

Students who complete this course will have reviewed all of the exam objectives and be on their way to preparing for Microsoft Office Specialist Access 2016 Exam #77-730. Successful completion of the certification exam provides a competitive advantage by validating the knowledge and skill sets for individuals who may be seeking employment or further job opportunities in their careers.

Suggested Course Length: 36-60 Hours

Course Prerequisites

This course is designed for students who are familiar with personal computers, using a keyboard and using a mouse. The course assumes that students have completed the *Microsoft Windows* course or have equivalent Microsoft Windows knowledge and experience.

- start and run Windows
- use the taskbar
- use the Start button
- use the Help feature
- use Minimize, Restore Down/Maximize, or Close
- use the left and right mouse buttons appropriately
- understand file management techniques
- navigate between files, folders, or drives

About This Courseware

Courseware Description
 Course Design
 Course Objectives
 Conventions and Graphics

Lesson 1: Exploring the Access Environment

Lesson Objectives
 An Introduction to Databases
 Spreadsheet Databases
 Relational Database Management Systems (RDBMS)
 What is Access?
 Access Database Files
 Database Objects
 Access Web App Databases and Desktop Databases
 Components of the Access User Interface
 The Ribbon
 The Navigation Pane
 Backstage View
 Looking at the Screen
 Viewing Screen Tips
 Using the Quick Access Toolbar
 Starting Access and Working with Databases
 Creating New Databases
 Importing Objects into a Database
 Closing Databases
 Opening Databases
 Using the Navigation Pane
 Viewing Objects
 Sorting and Filtering Objects
 Setting Navigation Options
 Copying Objects
 Renaming Objects
 Deleting Objects
 Saving and Exporting Options
 Saving a Database as a Template
 Exporting Data to Alternate Formats
 Setting Access Options
 Lesson Summary
 Review Questions

Lesson 2: Building Tables

Lesson Objectives
 Table Basics
 Table Structure
 Data Types
 Primary Keys
 Defining Tables in Access
 Modifying Table Fields
 Selecting Fields
 Using the Field Properties Pane
 About Table Properties

Access Table Views
 Creating Tables in Datasheet View
 Reusing Design Elements
 Using Quick Start Fields
 Using Application Parts
 Importing Data
 Importing Tables from Other Databases
 Importing Data from Excel
 Appending Records to a Table
 Importing Data as a Linked Table
 Working in Datasheet View
 Navigating a Datasheet
 Adding, Updating, and Deleting Records
 Manipulating a Datasheet
 Printing Datasheet Records
 Constraining Input
 Validation Rules
 Input Masks
 Default Values
 Table Relationships and Keys
 Foreign Keys
 Relationship Types
 Database Schema
 Creating Relationships in a Database
 Creating Lookup Fields
 Working with Related Data
 Error/Alert Messages
 Messages Encountered in Design View
 Messages Encountered during Data Entry
 Messages Pertaining to Related Tables
 Lesson Summary
 Review Questions

Lesson 3: Retrieving the Data You Want

Lesson Objectives
 Retrieving Data
 Finding Records
 Using Wildcards
 Finding and Replacing Data
 Sorting Records
 Filtering Records
 Filter by Selection
 Filter by Form
 Understanding Queries
 Running a Query (Datasheet View)
 Creating a Select Query in Design View
 Creating a Select Query with the Query Wizard

Modifying Queries
 Adding and Removing Fields
 Sorting Query Fields
 Hiding Query Fields
 Formatting Query Fields
 Renaming Queries
 Creating Multiple-Table Queries
 Understanding Joins and Relationships
 Querying Related Tables
 Creating Joins in a Query
 Adding Query Criteria
 Arithmetic Operators
 Comparison Operators
 Concatenation Operators
 Special Operators
 Logical Operators
 Performing Calculations in Queries
 Understanding Expressions
 Adding Calculated Fields to a Query
 Using the Expression Builder
 Grouping and Summarizing Query Data
 Aggregate Functions
 Creating Parameter Queries
 Parameters and Data Types
 Adding Parameters
 Using Conditional Logic in a Query
 Creating Action Queries
 Creating Update Queries
 Creating Make Table Queries
 Creating Append Queries
 Creating Delete Queries
 Creating Crosstab Queries
 Using the Crosstab Query Wizard
 Lesson Summary
 Review Questions

Lesson 4: Working with Forms

Lesson Objectives
 Why Use Forms?
 Working with Records in a Form
 The Inside Scoop – Controls and Properties
 Form Views
 Form View
 Layout View
 Design View
 Creating Forms Using Automated Form Tools
 Understanding Forms with Subforms
 Using the Form Wizard
 Creating Forms from Scratch
 The Field List Pane
 The Property Sheet

- The Record Source and Control
 - Source Properties
- Modifying Forms
 - Selecting Controls
 - Removing Controls
 - Resizing Controls
 - Applying Formatting to Controls
- Working with Layouts
 - Moving Controls
 - Using Table Functions
- Working with a Form in Design View
 - Positioning Form Controls
- Creating Forms Using Application Parts
 - Deleting Forms
- Adding Controls from the Ribbon
 - Adding Controls in Layout View
 - Adding Controls in Design View
 - Aligning and Sizing Controls
 - Adding a Subform Control
 - Manually Creating and Linking a Subform
- Making Forms User-Friendly
 - Using Lookup Fields on Forms
 - Changing the Tab Order
 - Creating Control Tips and Hot Keys
 - Validating Data Entry in Forms
- Applying Formatting and Design Options
 - Working with Headers and Footers
 - Working with Fonts, Backgrounds, and Images
 - Working with Themes
 - Formatting Forms for Printing
- Navigation Forms
- Lesson Summary
- Review Questions
- Lesson 5: Designing Reports**
- Lesson Objectives
- What is a Report?
 - Report Sections
 - Report Layouts
 - Controls and properties
- Report Views
 - Report View
 - Print Preview
 - Layout View
 - Design View
- Creating Reports
 - Using the Report Tool
 - Creating a Report Using the Report Wizard
 - Deleting Reports

- Creating Reports from Scratch
 - The Field List Pane
 - The Property Sheet
 - The Record Source and Control Source Properties
- Working with Reports
 - Selecting Controls
 - Resizing Controls
 - Control Report Positioning
 - Applying Formatting to Report Elements
 - Working in Layout View
 - Working in Design View
- Adding Controls from the Ribbon
 - Adding Controls from the Ribbon in Layout View
 - Adding Controls from the Ribbon in Design View
 - Working with Subform/Subreport Controls
- Adding Calculations to Reports
- Grouping and Sorting Data in Reports
 - Adding Grouping Levels with the Shortcut Menu
 - Using the Group, Sort and Total Pane
- Formatting and Previewing Reports
 - Previewing Reports
 - Working with Page Size, Orientation and Report Width Margins
 - Formatting Reports into Multiple Columns
 - Report Headers and Footers
 - Adding Images to Reports
 - Working with Colors
 - Applying a Theme
- Printing Reports
 - Sorting and Filtering Printed Output
 - Report Output Options
- Lesson Summary
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- Lesson 6: Protecting, Maintaining, and Managing Databases**
- Lesson Objectives
- Protecting Database Files
 - Open Modes for Databases
 - Encrypting and Password-protecting a Database
- Maintaining Database Files
 - Backing Up a Database
 - Recovering Data from a Backup
 - Compacting and Repairing

- Managing Databases
 - Setting Startup Options
 - Renaming Database Objects
 - Object Dependencies and Deleting Database Objects
 - Working with Split Databases
- Lesson Summary
- Review Questions
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