

# Microsoft® Excel 2016

## Expert Certification Guide

Courseware 3264   Exam 77-728   ISBN 978-1-55332-499-7

### Course Description

*Microsoft® Excel Expert* teaches students how to use a variety of intermediate and advanced features to merge workbooks, perform data analysis, and audit formulas in spreadsheets. Students also use summary functions, create PivotTables and PivotCharts, and work with macros.

Students who complete this course will have reviewed all the exam objectives to prepare for: Microsoft Excel 2016 Expert Exam #77-728. 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: 25-30 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: Advanced Formatting**

Lesson Objectives

Conditional Formatting

Basic Conditional Formatting

Manage Conditional Formatting

Rules

Custom Conditional Formatting

Using a Formula

Using Custom Cell Formats

Using Custom Number Formats

Using Custom Accounting

Formats

Using Custom Date and Time

Formats

Internationalization

Using International Currency and

Number Formats

Using International Currency

Symbols

Using Custom and International

Date and Time Formats

User Defined Styles

Creating and Modifying Cell

Styles

Custom Color Formats

Custom Themes

+Body and +Heading Fonts

Lesson Summary

Review Questions

**Lesson 2: Advanced Functions and Formulas**

Lesson Objectives

Working with Named Ranges

Creating Named Ranges

Naming Tables

Modifying and Deleting Named

Ranges

What are Functions?

Using the Correct Syntax

Inserting Functions

Using Lookup Functions

CHOOSE Function

INDEX Function

MATCH Function

LOOKUP Function

HLOOKUP &amp; VLOOKUP Functions

Date and Time Functions

Checking for Formula Errors

Using the Error Checking Tool

Tracing Formula Errors

Evaluate Formulas

Manually Checking and

Displaying Formulas

Lesson Summary

Review Questions

**Lesson 3: Data Analysis Using Pivot Tables and Business Intelligence**

Lesson Objectives

Creating &amp; Managing Pivot Tables

Creating a Pivot Table

Format Pivot Table Data

Customizing PivotTables

Using Data Slicers with a PivotTable

Group Pivot Table Data

Calculated Fields and Items

Referencing Pivot Table Data

Pivot Charts

Creating a PivotChart

Changing Pivot Chart Options

Drilling Down a Pivot Table or

Pivot Chart

Pivot Chart Styles

Business Intelligence

Activating Power Pivot

Connecting Power Pivot to a Data Source

Power Pivot Calculated Fields

Manage Table Relationships

Using Cube Functions

Lesson Summary

Review Questions

**Lesson 4: Workbook Management Features**

Lesson Objectives

Linking External Workbooks

Referencing Other Worksheets in Formulas

Linking Other Workbooks

Modifying Workbook Links

Removing Workbook Links

Consolidating Data

Workgroup Functions

Creating a Shared Workbook

Tracking Changes

Showing the History of Changes

Removing Shared Use of

Workbooks

Mark as Final

Using Comments

Protecting Your Workbook Files

Using Passwords

Protecting the Worksheet

Allow Ranges for Editing

Protecting the Workbook

Structure

Password Protecting Workbook

Lesson Summary

Review Questions

**Lesson 5: Advanced Charts, Functions and What-if Analysis**

Lesson Objectives

Advanced Chart Elements

Formatting a Simple Chart

Add a Secondary Vertical Axis

Custom Chart Templates

Chart Trendline

Using Advanced Functions and Features

Financial Functions

Nesting Functions

Conditional Logic Functions

Conditional Summary Functions

What-If Analysis

Manual What-If Analysis

Using the Goal Seek Tool

Working with Scenarios

Using Cell Watch

Structured References

Lesson Summary

Review Questions

**Lesson 6: Data Filtering, Macros, and Forms**

Lesson Objectives

Fill Series

Advanced Filtering

Using Advanced Filters

Using Comparison Operators

Working with Templates

Creating a Template

Modifying Templates

Deleting Templates

Accessing Hidden Ribbon Tabs

Macros

Creating a Macro

Copy Macros

Adding Form Controls

Adding Command Buttons

Spin Buttons and Scroll Bars

Check Boxes and Option Buttons

List Boxes and Combo Boxes

Group Box

Text Boxes

Changing Excel Formula Calculation

Options

Lesson Summary

Review Questions

**Appendices**

Appendix A: Courseware Mapping

Appendix B: Glossary of Terms

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