

# Microsoft Excel2016

## Module 2: Formatting Workbook Text and Data

### A Guide to this Instructor's Manual:

We have designed this Instructor's Manual to supplement and enhance your teaching experience through classroom activities and a cohesive module summary.

This document is organized chronologically, using the same headings in **blue** that you see in the textbook. Under each heading you will find (in order): Lecture Notes that summarize the section, Teacher Tips, Classroom Activities, and Lab Activities. Pay special attention to teaching tips and activities geared towards quizzing your students, enhancing their critical thinking skills, and encouraging experimentation within the software.

In addition to this Instructor's Manual, our Instructor's Resources also contains PowerPoint Presentations, Test Banks, and other supplements to aid in your teaching experience.

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### Module Objectives

Students will have mastered the material in this module when they can:

- Change fonts, fontstyle, andfont color
- Add fill colors and abackground image
- Create formulas to calculatesales data
- Format numbers as currency and percentages
- Format dates and times
- Align, indent, and rotate cellcontents
- Merge a group of cells
- Use theAVERAGE function
- Apply cell styles
- Copy and paste formats withthe Format Painter
- Find and replace text andformatting
- Change workbook themes
- Highlight cells withconditional formats
- Format a worksheet forprinting

- Set the print area, insert page breaks, footers, and set margins
- add print titles, create headers and

## Formatting Cell Text

### LECTURE NOTES

- Explain how to use themes to format data
- Demonstrate how to use galleries and Live Preview
- Review how to apply font colors
- Remind students how to format text selections

### TEACHER TIP

Working with font types, sizes, and colors can make a dramatic difference in the appearance and presentation of a spreadsheet. Be sure to point out the differences in serif and sans serif fonts and show examples. Serif means strokes or tails; sans means without. In addition, discuss the difference between theme and non-theme fonts.

### CLASSROOM ACTIVITIES

Class Discussion: Show the students different fonts. Ask them to determine if the print is serif or sans serif.

Class Discussion: How many colors are always available regardless of the theme selected? What are they? (Answer: Ten; dark red, red, orange, yellow, light green, green, light blue, blue, dark blue, and purple)

Quick Quiz:

1. True/False: Italic and bold are examples of a font style. (Answer: True)
2. A(n) \_\_\_\_\_ is a menu or grid that shows a visual representation of the options available for the selected button. (Answer: gallery)

## Working with Fill Colors and Backgrounds

### LECTURE NOTES

- Demonstrate how to change a fill color
- Show how to add a background image to the Documentation sheet

### TEACHER TIP

Color can enhance or detract from the content. Caution students to choose color based on the audience and the information contained in the worksheet.

Another option for formatting the cell background is to add a background pattern. To choose a background pattern, select the cell range and open the Format Cells dialog box. Click the Fill tab and choose a background pattern from the list of patterns in the Pattern Style list box.

### CLASSROOM ACTIVITIES

Class Discussion: What are some tips to use color wisely? (Answer: Use colors from the same theme. Use colors to differentiate types of cell content and direct users where to enter data. Avoid garish

color combinations. Print the workbook both in color and black-and-white. Understand your printer's limitations. Be sensitive to your audience.)

Quick Quiz:

1. True/False: By default, Excel does not add background color to worksheet cells. (Answer: True)
2. True/False: You cannot change the background image of a worksheet. (Answer: False)

## Using Functions and Formulas to Calculate Sales Data

### LECTURE NOTES

- Demonstrate how to use functions and formulas to calculate sales values

### CLASSROOM ACTIVITIES

Quick Quiz:

1. What are gross sales? (Answer: The total amount of sales.)
2. What are operating expenses? (Answer: The costs of running a business.)

Class Discussion: What is net profit versus net loss? (Answer: The difference between the income from the gross sales and the total cost of sales and operating expenses.)

## Formatting Numbers

### LECTURE NOTES

- Demonstrate how to apply number formats
- Show how to format dates and times

### TEACHER TIP

By selecting the Number group on the Home tab you can select a number format, apply accounting or other currency formats, change a number to a percentage, insert a comma as a thousands separator, and increase or decrease the number of digits displayed to the right of the decimal point.

Reducing the number of decimal points displayed in a cell does not change the cell's value, but merely rounds off the lowest digit. You can display this fact to students by entering the formula  $=2/3$  in one cell and then reducing the decimal places shown to zero. Excel will display the value 1 in the cell. Now insert a formula in another cell that multiplies that value by 2. Excel will display the value 1.33333 even though the first cell still only displays the value 1.

One possible source of confusion for the students is the difference between the Currency format and the Accounting format. Use the Currency format for general monetary values. Use the Accounting format when you want to align decimal points within a column.

## CLASSROOM ACTIVITIES

Class Discussion: What might the General number format be good for? (Answer: Simple calculations.)

What are some other ways to format numbers? (Answer: Set the number of digits displayed to the right of the decimal point. Add commas. Apply currency or accounting symbols. Display % symbols.)

Quick Quiz:

1. Excel stores dates and times as \_\_\_\_\_. (Answer: numbers)
2. What is the Short Date format? (Answer: The abbreviated format for dates, *mm/dd/yyyy*)

## Formatting Worksheet Cells

### LECTURE NOTES

- Demonstrate how to align cell content
- Discuss how to indent cell content
- Review how to add cell borders
- Show how to merge cell content
- Explain how to rotate cell content

### TEACHER TIP

When you enter numbers and formulas into a cell, Excel automatically aligns them with the cell's right edge and bottom border, while text entries are aligned with the left edge and bottom border. You can control the alignment of data within a cell both horizontally and vertically. You can also have Excel shrink the text to fit within the given column width you have chosen or even rotate text from -90 to +90 degrees.

The gridlines you see in Excel in a new worksheet are not displayed on printed pages. It is helpful in some cases to display borders around cells.

You can display the date value underlying any Excel date (or time) by changing the format of the cell from a date or time format to the General number format.

## CLASSROOM ACTIVITIES

Quick Quiz:

1. True/False: Combining several cells into one cell is called aligning. (Answer: False)
2. True/False: Text is oriented within a cell horizontally from left to right. (Answer: True)

Class Discussion:

What are the three steps to indent text in a cell? (Answer: 1. Select the range. 2. In the Alignment group on the Home tab, click the Increase Indent button. 3. Click outside of the selected cell to deselect the range.)

## LAB ACTIVITIES

Make your example worksheet available to each student. Have each student try each of the formatting options you have presented so far. You want to stress that they are just

experimenting with these features so that they will not feel any pressure to “get it right.” The concepts will stick in their minds better if you offer them a time to try these things out. You might repeat this process throughout the module. Just have the students keep this sample worksheet open all the time and periodically pause long enough for them to try the different formats that you are illustrating.

### [Exploring the Format Cells Dialog Box](#)

#### LECTURE NOTES

- Show how to open the Format Cells dialog box and review the options
- Explain how to format the column and row labels
- Demonstrate how to set the border color

#### TEACHER TIP

Point out to students that the buttons on the Hometab provide quick access to the most common formatting, but you can also use the Format Cells dialog box.

Your students can add a gradient fill to any worksheet cell by opening the Format Cells dialog box and clicking the Fill tab; select the fill options from the commands on the tab.

#### CLASSROOM ACTIVITIES

Creative Thinking Activity: Discuss the six formatting tabs and how they are used.

(Answer: Number: Provides options for formatting the appearance of numbers, including dates and numbers treated as text (for example, telephone or Social Security numbers)

- Alignment: Provides options for how data is aligned within a cell
- Font: Provides options for selecting font types, sizes, styles, and other formatting attributes such as underlining and font colors
- Border: Provides options for adding cell borders
- Fill: Provides options for creating and applying background colors and patterns to cells
- Protection: Provides options for locking or hiding cells to prevent other users from modifying their contents)

#### Quick Quiz:

1. You can also open the Format Cells dialog box by \_\_\_\_\_ a cell or range, and then clicking Format Cells on the shortcut menu. (Answer: right-clicking)

### [Calculating Averages](#)

#### LECTURE NOTES

- Explain how to use the AVERAGE function in calculations

#### CLASSROOM ACTIVITIES

#### Quick Quiz:

1. What value does this function return: =AVERAGE (3, 6, 7, 8)? (Answer: C)
  - A. 3
  - B. 5

- C. 6
  - D. 7
2. What is the syntax of the Average function? Answer: AVERAGE (number1, number2, number3, ...)

### Applying Cell Styles

#### LECTURE NOTES

- Review how to apply built-in styles

#### TEACHER TIP

Whenever several cells need to use the same format, you can create a style for those cells. A style is a saved collection of formatting options—number formats, text alignment, font sizes and colors, borders, and background fills—that can be applied to cells in the worksheet. Excel remembers which styles are associated with which cells in the workbook. If you modify the specifications for a style, the appearance of any cell associated with that style would be automatically changed to reflect the new style.

#### CLASSROOM ACTIVITIES

##### Quick Quiz:

1. True/False: A style is a collection of formatting. (Answer: True)
2. True/False: Excel has built-in styles to format worksheet titles. (Answer: True)

Discussion: What are the steps to applying a built-in style? (Answer: First select the cell or range.

Next, in the Styles group on the Home tab, click the Cell Styles button. Click the style to apply to the selected cell or range.)

#### LAB ACTIVITIES

Have the students practice applying styles. First have them select the cell or range. In the Styles group on the Home tab, click the Cell Styles button. Have them point to each style in the Cell Styles gallery to see a Live Preview of that style on the selected cell or range. Have them click the style they want to apply to the selected cell or range.

### Copying and Pasting Formats

#### LECTURE NOTES

- Demonstrate how to use the Format Painter
- Explain how to copy formats with the Paste Options button

#### TEACHER TIP

Your students can create their own cell styles by clicking the Cell Style button from the Styles group on the Home tab and clicking New Cell Style. Excel will open a dialog box from which students can specify the format of the cell style. Cell styles can be saved with the current workbook and then merged with other workbooks.

The Format Painter copies and pastes only formatting. When you copy and paste, you can also use the Paste Options button, which lets you choose whether to paste the formatting from a copied range along with its contents. With the Paste Special dialog box, you can specify exactly what you want to paste.

## CLASSROOM ACTIVITIES

### Quick Quiz:

1. True/False: The Format Painter copies data as well as formatting. (Answer: False)
2. True/False: You can click the Transpose button to paste the column data into a row or to paste the row data into a column. (Answer: True)

### Class Discussion:

Open the Paste Special dialog box and review each of the commands. Together experiment with how each command controls how the copied range is pasted.

## [Finding and Replacing Text and Formats](#)

### LECTURE NOTES

- Demonstrate how to use the Find and Replace commands

## CLASSROOM ACTIVITIES

### Quick Quiz:

1. True/False: You cannot replace text and a format simultaneously. (Answer: False)
2. True/False: The shortcut key for the Replace command is Ctrl+H. (Answer: True)

## [Working with Themes](#)

### LECTURE NOTES

- Review how to change a workbook's theme
- Show how to select the Office theme

### TEACHER TIP

Styles and themes allow consistency across the Microsoft Office 2016 software.

## CLASSROOM ACTIVITIES

### Quick Quiz:

1. True/False: The appearance of non-theme fonts, colors, and effects changes based on which theme is applied to the workbook. (Answer: False)
2. True/False: The Themes group is found on the Hometab. (Answer: False, it is found on the Page Layout tab)

## [Highlighting Cells with Conditional Formats](#)

### LECTURE NOTES

- Explain how to apply conditional formatting
- Discuss how to set the format for negative numbers
- Show how to highlight cells that meet specific criteria
- Demonstrate how to use the Quick Analysis tool

- Tell students how to clear conditional formatting
- Review how to create a conditional formatting legend

**TEACHER TIP**

Discuss how conditional formatting in a worksheet is special formatting applied only to certain cells depending on one or more conditions. If the cell contents meet the condition or conditions you specify, the formatting is applied to the value.

**CLASSROOM ACTIVITIES****Quick Quiz:**

1. True/False: Conditional formatting in a worksheet is special formatting applied when certain cell values meet one or more conditions. (Answer: True)
2. A(n) \_\_\_\_\_ is a key that shows each color used in the worksheet and what it means. (Answer: legend)

**Class Discussion:** In class, discuss the steps to remove all conditional formatting from a worksheet. (Answer: To remove all conditional formatting from a worksheet, click Clear Rules from Entire Sheet. To remove it from the selected range, click Clear Rules from Selected Cells.)

**[Formatting a Worksheet for Printing](#)****LECTURE NOTES**

- Show how to use Page Break Preview to view a worksheet
- Review how to define the print area
- Demonstrate how to insert page breaks
- Discuss how to add print titles
- Explain how to insert a header and footer
- Remind students how to set the page margins

**TEACHER TIP**

By default, Excel prints all of the active worksheets that contain text, formulas, or values. You can define a print area that contains only the content that you want to print.

A header is text printed within the top margin of every worksheet page, and a footer is text printed within the bottom margin of every page. Headers and footers can add important information to your printouts.

**CLASSROOM ACTIVITIES****Quick Quiz:**

1. A page break is indicated by a(n) \_\_\_\_\_. (Answer: C)
  - A. red solid line
  - B. green solid line
  - C. dotted blue border
  - D. dotted yellow border
2. A(n) \_\_\_\_\_ is the space between the page content and the edges of the page. (Answer: margin)

**Class Discussion:** What is a header? What is a footer? Discuss how they can improve a worksheet's appearance. (Answer: A header is text printed within the top margin of every worksheet page and a footer is printed within the bottom margin of every page. Headers and footers can add important information to your printouts such as: your name, the date the report was created, a report name, or even the filename and location. Based on information gathered when you installed Excel, any properties of the workbook that you may have edited, and some common formatting, Excel tries to anticipate headers and footers you may wish to use and provides several preformatted options.)

## LAB ACTIVITIES

Have the students practice creating custom headers and footers in class. This is a feature they will use repeatedly when creating workbooks. Excel provides several formatting buttons to customize headers or footers. There is a left, center, and right section in which to enter data. You can type in any text you like and use the Font button to format the text just as you would in a worksheet cell. The Header/Footer formatting buttons provide some common actions using built-in Excel formatting codes. The Date, Filename, and Path buttons are very handy. People often forget what they named a worksheet or where they stored it, which is where the Filename and Path buttons become useful.

## [End of Module Material](#)

- **Review Assignments:** Review Assignments provide students with additional practice of the skills they learned in the module using the same module case, with which they are already familiar. These assignments are designed as straight practice and do not include anything of an exploratory nature.
- **Case Problems:** A typical NP module has four Case Problems following the Review Assignments. Short modules can have fewer Case Problems (or none at all); other modules may have five Case Problems. The Case Problems provide further hands-on assessment of the skills and topics presented in the module, but with new case scenarios. There are five types of Case Problems:
  - **Apply.** In this type of Case Problem, students apply the skills that they have learned in the module to solve a new problem.
  - **Create.** In a Create Case Problem, students are either shown the end result (such as a finished Word document) and asked to create the document based on the figure provided, or, students are asked to create something from scratch in a more free-form manner.
  - **Challenge.** A Challenge Case Problem involves one or more Explore steps. These steps challenge students by having them go beyond what was covered in the module, either with guidance in the step or by using online Help as directed.
  - **Research.** A Research Case Problem requires students to find information on the Internet to help solve a problem or to include in the file they are creating.
  - **Troubleshoot.** In this type of Case Problem, certain steps of the exercise require students to identify and correct errors that are intentionally placed in the files. Completing these steps helps to promote problem solving and critical thinking.

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