

Microsoft[®] Excel 2016 Basics – Unit 1

- Teacher Notes

Directions:

Fill in the blanks.

Utilizing Microsoft[®] Excel Segment

1. Microsoft[®] Excel

- Is a computer program used to enter, **analyze** and present data using spreadsheets and **charts**

2. Spreadsheets

- Are grids of **rows and columns** in which text, numbers and the results of **calculations** can be entered

3. Worksheets

- Are **computerized** spreadsheets
 - this is where work is completed in Microsoft[®] Excel
- Can also be called **spreadsheets**

4. Workbooks

- Are the **files** used to store the worksheets
- Can contain one or more **worksheets**

Microsoft[®] Excel in the Workplace Segment

1. Play iCEV Video

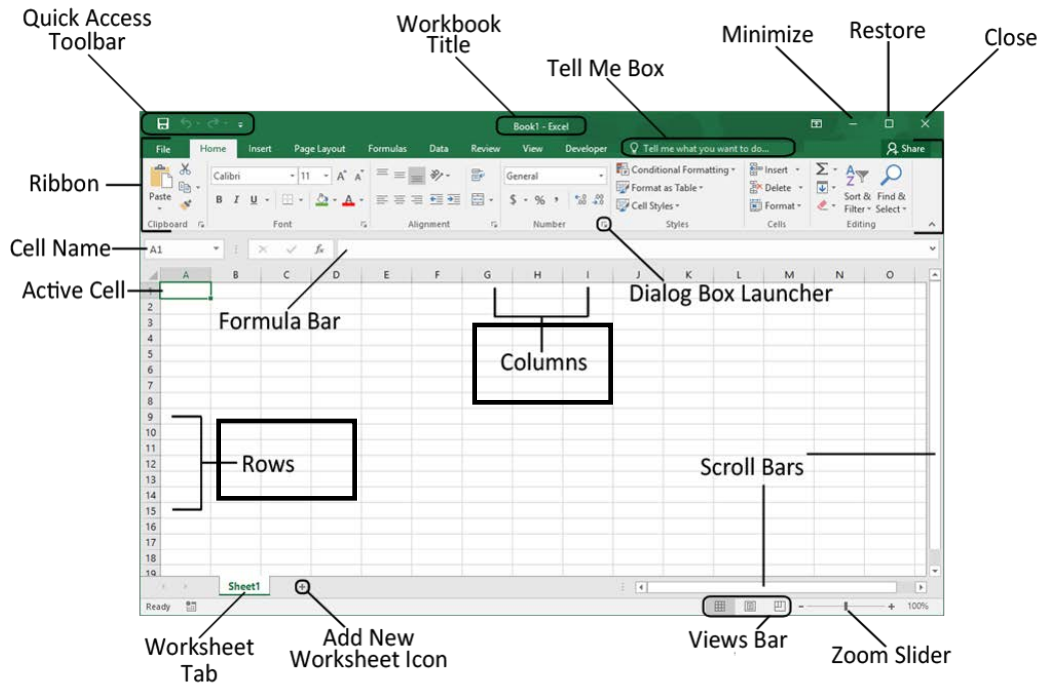
Show *Microsoft[®] Excel in the Workplace* video segment.

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Layout & Inside the Ribbon & Backstage View Segment

1. Excel Window Layout



2. Ribbon

- Is the major **organizational unit** of the program
- Contains tabs, groups and **commands**

3. File Tab

- When clicked, opens **Backstage View**
 - automatically opens the Info option by default
- Holds the following options:
 - Info
 - New
 - Open
 - Save
 - Save As
 - Print
 - Share
 - Export
 - **Publish**
 - Close
 - Account
 - Options

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4. File Tab/Backstage View

- Info
 - contains commands to **protect**, inspect and manage workbooks and set browser view options
 - shows **properties** of the workbook

5. File Tab/Backstage View

- New
 - contains **thumbnails** which can be clicked to create a new:
 - blank workbook
 - workbook from a template
 - holds a search box
 - can be used to locate other **templates**

6. File Tab/Backstage View

- Open
 - contains the commands for:
 - opening **previously saved** documents in a variety of locations such as:
 - recent locations
 - **cloud-based** storage
 - locations on the computer
 - browsing for files

7. File Tab/Backstage View

- Save
 - if the file has been saved before, when clicked, the command saves the file in its **current location**
 - if not previously saved, when clicked, it opens the **Save As screen**

8. File Tab/Backstage View

- Save As
 - shows sites where files **can be stored** such as the computer
 - offers the command to browse for other **available locations**

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9. File Tab/Backstage View

- Print
 - shows properties associated with **printing** the worksheet such as:
 - preview of the file
 - number of copies
 - selected printer and properties
 - settings to be applied to the printed file
 - contains the **Print button** to start printing

10. File Tab/Backstage View

- Share
 - contains commands to share the document by:
 - sharing to a **cloud-based** location
 - **e-mailing**

11. File Tab/Backstage View

- Export
 - contains the commands for:
 - creating a **PDF/XPS** version of the document
 - changing the **file type**

12. File Tab/Backstage View

- **Publish**
 - contains commands for publishing to **Power BI**

13. File Tab/Backstage View

- **Close**
 - if clicked will **exit** the program

14. File Tab/Backstage View

- Account
 - shows:
 - **user** information
 - customization options for Office programs
 - connected **cloud services**
 - product information

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15. File Tab/Backstage View

- Options
 - opens the **Excel Options window** where various program settings can be **edited**

16. File Tab/Backstage View

- Can be exited by clicking the **arrow** at the top **left** corner

17. Home Tab

- Contains the following groups:
 - **Clipboard**
 - holds commands for cutting, copying, pasting, formatting painter and opening the clipboard
 - Font
 - contains commands for formatting text such as specifying font type, size, case, color, effects and highlight
 - **Alignment**
 - holds commands to format the alignment of text in cells, indent text, wrap text and merge cells and center their contents

18. Home Tab

- Contains the following groups:
 - Number
 - holds commands setting the data type for cells and formatting for numbers in cells
 - **Styles**
 - contains commands for adding conditional formatting, formatting data as a table and applying styles
 - **Cells**
 - holds commands to insert, delete and format cell width and height
 - Editing
 - contains commands to AutoSum, AutoFill, clear, sort and filter and find and select cell contents

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19. Insert Tab

- Contains the following groups:
 - **Tables**
 - holds commands to create PivotTables and Tables
 - Illustrations
 - contains commands for adding pictures shapes, SmartArt and screenshots to worksheets
 - Charts
 - holds commands for creating charts and PivotCharts
 - **Sparklines**
 - consist of commands to add sparklines

20. Insert Tab

- Contains the following groups:
 - Filters
 - holds commands to add Slicers and Timelines
 - **Links**
 - contains commands for adding hyperlinks
 - **Text**
 - holds commands for inserting text boxes, headers, footers, WordArt, signature lines and objects
 - Symbols
 - consist of commands to add equations and symbols

21. Page Layout Tab

- Contains the following groups:
 - Themes
 - consists of commands to apply themes, colors, fonts and effects to worksheets
 - **Page Setup**
 - holds commands for setting margins, page orientation, page size, print area, page breaks, backgrounds and printing titles
 - **Scale to Fit**
 - contains commands to set the width and height of the printout and if the contents are scaled

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22. Page Layout Tab

- Contains the following groups:
 - **Sheet Options**
 - consists of commands for viewing and printing gridlines and headings
 - **Arrange**
 - consists of commands which can be used to position objects, open the selection pane, align objects, group objects and rotate objects

23. Formulas Tab

- Contains the following groups:
 - Function Library
 - holds the functions which can be inserted into worksheets
 - **Defined Names**
 - contains commands for naming and managing names used in a workbook
 - Formula Auditing
 - consists of commands to analyze formulas
 - **Calculation**
 - holds commands to calculate formulas in a workbook

24. Data Tab

- Contains the following groups:
 - **Get External Data**
 - contains commands to retrieve information from other data sources
 - Get & Transform
 - holds commands to connect, combine and refine data sources
 - **Connections**
 - consists of commands to manage data connections
 - Sort & Filter
 - contains commands to apply and clear sorts and filters

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25. Data Tab

- Contains the following groups:
 - **Data Tools**
 - contains commands to convert text to columns, flash fill, remove duplicates, validate text, consolidate data, view relationships and manage data
 - Forecast
 - holds commands to run a what-if analysis and create a forecast sheet
 - **Outline**
 - consists of commands to outline and summarize data

26. Review Tab

- Contains the following groups:
 - **Proofing**
 - consists of commands to complete a spell check or view the thesaurus
 - **Insights**
 - holds the command to lookup information about selected data
 - Language
 - contains the command to translate to another language

27. Review Tab

- Contains the following groups:
 - **Comments**
 - contains the commands to add, delete, navigate and show comments
 - **Changes**
 - holds commands to protect worksheets and workbooks, share workbooks and track changes

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28. View Tab

- Contains the following groups:
 - **Worksheet Views**
 - holds commands to change how the worksheet is shown on the screen
 - Show
 - contains commands for viewing different options such as the ruler, gridlines, formula bar and headings
 - **Zoom**
 - holds commands to zoom in to the worksheet

29. View Tab

- Contains the following groups:
 - **Window**
 - consists of commands to change how the program window or windows are viewed
 - **Macros**
 - holds commands to view and record macros

Workbooks & Templates Segment

1. Microsoft® Excel

- Can be opened by:
 - clicking on the program icon on the **Start Menu**
 - double-clicking on the icon of a previously created Excel workbook
 - **double-clicking** on a shortcut to the program

2. Microsoft® Excel

- When opened by clicking the program icon or double-clicking a **program shortcut**, opens a window with a new, blank worksheet **available for editing**

3. Templates

- Are **sample files** which contain some formatting and can be customized to serve as a starting point for a **new document**

4. Worksheets

- Can be viewed using the views located on:
 - the Workbook Views group on the **View tab**
 - the **Views bar**

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5. Worksheet Views

- Include:
 - **Normal View**
 - maximizes the number of cells visible on the screen and keeps the column letters and row numbers close to the columns and rows
 - Page Break View
 - shows where page breaks will occur in a worksheet
 - **Page Layout View**
 - shows how the worksheet will appear when printed

6. Normal View

*See **Page Views Student Handout** for slide graphic*

7. Page Break View

*See **Page Views Student Handout** for slide graphic*

8. Page Layout View

*See **Page Views Student Handout** for slide graphic*

9. Window Group on the View Tab

- Contains commands to:
 - open the **same workbook** in a new window
 - arrange the program windows
 - freeze a portion of the pane while scrolling through the rest of the sheet
 - split the current window into different panes
 - hide or unhide windows
 - view windows **side by side**
 - enable synchronous scrolling
 - reset the window position
 - switch active windows

10. Synchronous Scrolling

- Allows users to **scroll through** multiple spreadsheets **at the same time**

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11. Keyboards

- Can be used to:
 - enter data
 - navigate worksheets
 - perform actions

12. Entering Data

- Can be completed by beginning to type on the keyboard
 - the text will be added in the active cell

Active Cell- a cell which is currently selected in an Excel spreadsheet; can be identified by a heavy green border located around the cell

13. Helpful Keys for Navigating Worksheets

- Include the following:
 - Enter
 - moves down one cell
 - Tab
 - moves right one cell
 - Arrow keys
 - move in the direction of the arrow

Pressing the Shift and Tab keys at the same time will move to the previous cell.

14. Helpful Keys for Entering Data

- Numeric Keypad (10-key pad)
 - requires the Number Lock to be activated to be used
 - press the Num Lock key to activate
 - contains number keys which can be used to easily enter numbers and complete calculations

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15. Helpful Keys to Delete Data

- **Backspace Key**
 - deletes the space directly behind the cursor in the active cell each time the key is pressed
- **Delete Key**
 - erases the space which is directly in front of the cursor in the active cell when pressed

To delete all of the contents of the cell, select the cell and press either the Backspace or Delete key. Double-click in the cell to edit the text or data which appears in it.

16. Keyboard Shortcuts

- Are **key combinations** which perform **certain commands** when pressed

17. Common Keyboard Shortcuts

| Shortcut Keys | Command Completed |
|---------------|--|
| Control N | Open a new workbook |
| Control O | Opens a previously created workbook |
| Control S | Save a workbook |
| Control W | Close a workbook |
| Control X | Cut content and place on the clipboard |
| Control C | Copy content to the clipboard |
| Control V | Paste content from the clipboard |
| Control A | Select all content |
| Control B | Bold selected content |
| Control I | Italicize selected content |
| Control U | Underline selected content |

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18. Common Keyboard Shortcuts

| Shortcut Keys | Command Completed |
|------------------|--|
| Control Z | Undo the last action |
| Control Y | Redo the last undone action |
| Control K | Insert a hyperlink |
| Control P | Print a workbook |
| Control 9 | Hide selected rows |
| Control 0 | Hide selected columns |
| Control End | Move to the last cell in a worksheet |
| Control Home | Move to the first cell in a worksheet |
| Control Spacebar | Select an entire column in a worksheet |
| Shift Spacebar | Select an entire row in a worksheet |

19. Saving

- Allows the file to be available **for future use** by storing it on a storage **device or computer**

20. Saving Files

- For the first time involves:
 - naming the file in the **File Name Box**
 - selecting a file type in the File Type drop down
 - choosing a **storage location**

21. Saving Files

- Should be completed after **any change** is made to the file
 - saving changes updates the previously saved version of the file with the most recent changes

Use the Save icon on the Quick Access Toolbar to complete a quick save or the keyboard shortcut **Control S**.

22. Files

- Are saved as **different file types** depending on the application used to create, save and open the file
- Have **file extensions** which indicate the file type
 - for example, a file created in Excel 2016 has a .xlsx file extension

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File type- the format in which a file is stored; typically corresponds to the program used to create the file

File extension- a dot followed by three or four characters at the end of the file name used to show the file type

23. Common File Types

| File Type | File Extension |
|--|----------------|
| Excel 2007 to 2016 Workbooks | .xlsx |
| Excel 2007 to 2016 Macro Enabled Workbooks | .xlsm |
| Excel 97-2003 Workbook | .xls |
| Template | .xltx |
| Text (Tab-Delimited) | .txt |
| CSV (Comma-Delimited) | .csv |
| Portable Document Format (PDF) | .pdf |

Excel workbooks can be saved as many different file types such as the **2007-2016 workbook type**, a template, in compatibility mode as an Excel 97-2003 workbook or a PDF.

Excel can open files saved in compatible file types including text files and files created in other versions of Excel. Compatible files open in **Compatibility Mode** in Excel (which shows in the title bar of the program).

24. Saving as a Different File Type

- Can be completed by:
 - selecting the file type wanted in the **Save As window**
 - utilizing the **Export option** in Backstage View

25. E-mailing

- Can be completed by utilizing the **Share option** in Backstage View
 - contains options for sharing the workbook including **e-mailing** in different formats

26. E-mailing

- Can be completed by:
 - sending a **workbook** as an attachment
 - sending a PDF version of the document as an attachment
 - sending an XPS version of the **document** as an attachment

Opening Workbooks & Templates Segment

1. Play iCEV Video

Show **Opening Workbooks & Templates** video segment.

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Customizing the Excel Window Segment

1. Play iCEV Video

Show *Customizing the Excel Window* video segment.

Viewing Workbooks Segment

1. Play iCEV Video

Show *Viewing Workbooks* video segment.

Saving & Sharing Your Work Segment

1. Play iCEV Video

Show *Saving & Sharing Your Work* video segment.