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| **Course Code and Title: *INTRODUCTION TO COMPUTING (ITE 100)*** |
| **Lesson Number: Lesson 12 (Week 12)** |
| **Topic:** Microsoft Office Excel Spreadsheet |
| **Introduction:**  Before you go for an interview, you must have basic knowledge of Microsoft Excel. From human resources to the administration department, all are using Microsoft Excel. It is not only limited to college students; companies and small entrepreneurs are using it. Learning basic Excel is a must in today’s era. |
| **Learning Objectives:**  At the end of the lesson, you should be able to:   * Create a Workbook. * Create and format an Excel Table * Accomplish worksheets according to user requirements. |
| **Pre-Assessment:**  **Multiple Choice:** Choose the letter of the best answer. Write your answer on the sheet provided. (2 pts. each)  1. It displays the data or formula stored in the active cell.  A. Title bar C. Formula bar  B. Column letter D. Row number  2. It is a row and column arrangement of data.  A. Spreadsheet C. Formula  B. Worksheet D. Cell  3. It is a row and column arrangement of data.  A. Formula C. Cell  B. Value D. Excel  4.It is a built-in formula shortcut for common calculations, such as finding totals or averages.  A. Function C. Cell  B. Value D. Excel  5. It contains numerical data not used in calculations, such as zip codes, telephone numbers, dates, and so on.  A. Function C. Label  B. Value D. Excel |
| **Lesson Presentation:**  **Microsoft Excel,** software developed and manufactured by Microsoft Corporation, allows users to organize, format, and calculate data with formulas using a spreadsheet system broken up by rows and columns. A **spreadsheet** is a row and column arrangement of data. A spreadsheet looks like a grid of columns and rows. In Excel, the grid is referred to as a **worksheet.**  **Microsoft Excel 2019 Environment**    Microsoft Excel 2019  <https://excelchamps.com/wp-content/uploads/2017/09/excel-basic-with-window-components.png>  **Title bar**  It is at the top of the screen and displays the application's name (Excel) and the workbook's filename.  ***File menu***  is found in the top left corner of the spreadsheet program once it is opened. Clicking on the File menu displays a drop-down menu containing a number of options, such as *open*, *save*, and *print*.  ***Ribbon***  It helps to quickly find the commands that you need to complete a task. Commands are organized in logical groups, which are collected together under tabs. Each tab relates to a type of activity, such as writing or laying out a page. Some tabs are shown only when needed. For example, the **Picture Tools** tab is shown only when a picture is selected.  **Address Bar**  can be used to navigate to different cells in a spreadsheet.    **Formula bar**  Is located above the work area of the spreadsheet. The formula bar displays the data or formula stored in the active cell.  ***Column Letter***  Each column is identified by a letter in the [column header](http://spreadsheets.about.com/od/c/g/column_header.htm), starting with Column A and running through to column XFD. The intersection point between a column and a [row](http://spreadsheets.about.com/od/glossary/g/row_definition.htm) is a cell. Cells are the basic storage unit for data in a spreadsheet program. Columns are used as part of a [cell reference](http://spreadsheets.about.com/od/c/g/cell_ref_def.htm) that identifies [data](http://spreadsheets.about.com/od/d/g/data_definition.htm) such as A1, B23, or AA456. In a cell reference, the column letter always comes first.  ***Row Number***  A number in the [row header](http://spreadsheets.about.com/od/r/g/row_head_def.htm) identifies each row. There are more than one million rows in each Excel worksheet.  ***Active Cell***  An active cell is a rectangular box, highlighting the [cell](http://www.computerhope.com/jargon/c/cell.htm) in a [spreadsheet](http://www.computerhope.com/jargon/s/spreadsh.htm). It helps identify what cell is being worked with and where data will be entered.  ***Sheet Tabs***  Worksheet tabs are places in a workbook that enables switching of sheets. They enable tallying of information that is closed relate in different worksheets. This application is used in Microsoft excel practices.  **Workbooks and worksheets**  When you start Excel, you open a file that’s called a **workbook.**          Shown here is a blank worksheet in a new workbook.   1. The first workbook you’ll open is called **Book1**. This title appears in the bar at the top of the window until you save the workbook with your title.   **Columns, rows, and cells**  Worksheets are divided into columns, rows, and cells.    That’s the grid you see when you open up a workbook.  The headings combine to form the cell address. For example, the cell at the intersection of column A and row 3 is called cell A3. This is also called the **cell reference.**  **Cells are where the data goes.**  The data entered in a spreadsheet will be one of four types—**a label, a value, a formula, or a function.**   * + A label is alphabetical text and aligns on the left side of the cell. It can also contain numerical data not used in calculations, such as zip codes, telephone numbers, dates, etc.   + A value is a number and aligns at the right side of the cell.   + A formula is an equation that performs a calculation.   + A functionis a built-in formula shortcut for common calculations, such as finding totals or averages. * Outlined in black is called the **ACTIVE CELL**, indicating that any data you enter will go there. * You can enter data wherever you like by clicking any cell in the worksheet to select the cell.   For example, if you select a cell in column C on row 5, as shown in the picture below:     1. Column C is highlighted. 2. Row 5 is highlighted.     **Format Cells**  Microsoft Office Excel lets you change many of the ways that it displays data in a cell. For example, you can specify the number of digits to the right of a decimal point. You can also add a pattern and a border to the cell. You can access and modify most of these settings in the **Format Cells** dialog box. To access the **Format Cells** dialog box, click the **Format Cells** Dialog Box Launcher in the **Font** group on the **Home** tab.  The **Format Cells** dialog box contains the following tabs:   * **Number** * **Alignment** * **Font** * **Border** * **Fill** * **Protection**  *Formatting Borders* To make certain cells stand out in the worksheet, you may want to format a cell's borders. Changing Borders  1. Select the cell(s) whose borders you want to format 2. In the Font group, click theBorder button next to BORDERBottom Border button» select the desired border from the Home command tab.    The border is applied.  Changing Border Color  1. In the Font group, click theBorder button next to BORDERBottom Border button» select ***Line Color***» select the desired color from the Home command tab.    The cursor changes to the shape of a pencil. 2. To format individual borders, click the borders you want changed**.**To format multiple cells, click and drag across the desired cells. 3. To quit formatting border colors, press [**Esc**]  Changing Border Style  1. In the Font group, click theBorder button next to BORDERBottom Border button» select ***Line Style*** » select the desired line style from the Home command tab. 2. To format individual borders, click the borders you want changed**.**To format multiple cells, click and drag across the desired cells. 3. To quit formatting border styles, press [**Esc**]   **Merging and Splitting Cells**  You can *merge and center* data horizontally or vertically across multiple cells. You also can unmerge or *split* a merged cell into its original, individual cells. A common use of merge and center is to center a worksheet title over a table horizontally.  You can only split a cell that has previously been merged.  **Merging and Centering Cell**   * **Select the range of cells you want to merge and center.**     *A worksheet title before merging and centering.*   * **Click the Merge & Center button in the Alignment group on the Home tab.**   The cells are merged into a single cell, and the text (if any) is centered within the merged cell.    *A worksheet title after centering it across columns A through E.*   * **(Optional) Change the alignment in the merged cell, if desired.**   For example, click the Align Text Right button in the Alignment group if you want the text in the merged cell to be right-aligned instead of centered.  If you want to merge cells without centering the text contained in the cell, click the drop-down arrow beside the Merge & Center button in the Alignment group and choose either Merge Across or Merge Cells.  **Splitting of Cells**   1. **Select the merged cell.**   The Merge & Center button appears selected in the Alignment group.   1. **Click the Merge & Center button in the Alignment group.**   The merged cell reverts to a cell range again, and any text contained in the merged cell displays in the upper-left cell of the range. |
| **Synthesis:**  You can use Excel to enter all kinds of data, personal or professional. Use Excel to make budgets, record student grades or attendance, list the products you sell, or track the value of your monthly expenses. |
| **Evaluation: Lesson 12: Week 12**  In a long bond paper, draw the Excel 2019 Environment and label each part. |
| **REINFORCEMENT**  1. Label the parts of MS. Excel.  2. In the following exercise, you will enter text data into cells. Use short bond paper, portrait orientation, add a border. Draw a border like in the example below with column letter and row numbers.  1.Select cell A1.  2. Write to Chelsea's Cookies.  3. [Chelsea’s Cookies appears in A1, and A1 is still the active cell].  4.Select cell A2.  5. Write 1st Quarter Summary.  6. In cell A3, write 2020.  7. Using the worksheet below, enter the headings for cells A5, B5, C5, and D5. |
| **References:**  **ONLINE RESOURCES:**  Microsoft Excel 2019 <https://www.youtube.com/watch?v=XAw79w4Rr-o>  Microsoft Excel 2019 tutorial for beginners <https://www.youtube.com/watch?v=uBm4G6gyjSU> |