**EXCEL 2016 – BASICS PART 2**

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| **Participant Guide** |



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| **EXCEL 2016 – BASICS PART 2** | | |
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| **Target Audience:** | | This class was designed to meet the needs of new Excel 2016 users. |
| **Time Allotted:** | | 3 hours |
| **Objectives:** | | |
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| **Overall:** | At the end of this course you will be able to create and modify worksheets using Excel 2016. | |
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| **Specific:** | Participant will…   * Demonstrate a basic understanding of how Excel 2016 is organized * Create, modify and format worksheets * Customize Excel Themes and Table Styles * Show how to use Headers & Footers * Explain how to use Data Forms * Describe how to use Conditional Formatting | |

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| ***Welcome and Agenda*** | ***Notes*** |
| * Housekeeping * Introductions * Excel 2016 Overview Review * Adding and Editing Headers & Footers * Creating, Using, and Editing Data Forms * Extending a Data Series * Creating and Editing a Named Range * Conditional Formatting * Split a Worksheet * Edit Multiple Worksheets at the Same Time * Themes * Table Styles * Recent Workbooks |  |
| ***Introduction Activity*** | ***Notes*** |
| *Please tell us:*   * *Your Name* * *Your Department* * *What you hope to get out of today’s session* |  |
| ***Excel 2016 Overview*** | ***Notes*** |
| File Tab (Back Stage View)   **Quick Access Toolbar**    **Excel Ribbon**    **Groups**    Clipboard Group  Font Group  Alignment Group  Number Group  Styles  Group  Cells Group  Editing Group  **Name Box** |  |
| ***Exercise #1 – Navigating Around a Worksheet*** | ***Notes*** |
| 1. Open a new, blank worksheet in Excel. 2. From cell A1 press the Tab key on your keyboard. 3. Enter the following, pressing the Tab key after each one: Carrots, Beets, Potatoes, Squash 4. Press the Enter key. 5. From cell A2 enter Jones, and then press the Enter key. 6. Enter the following, pressing the Enter key after each one: Santis, Pierre, Li, Garcia. 7. Click in cell B2 and enter a quantity of carrots grown by Jones, then press the Tab key. 8. Continue entering quantities for Beets, Potatoes and Squash, pressing the Tab key after each. 9. After entering the quantity of Squash, press the Enter key. 10. Enter the quantities for Santis using the same process in Step 8. 11. Finish entering the quantities for the remaining names. 12. Highlight the names in column A and make them bold and give them a **Fill Color**. 13. Highlight the food items in row 1 and make them bold and give them the same **Fill Color**. 14. Highlight all of the cells with data and give them a **Border** of **All Borders**. 15. Click on the **All Cells** button and change the font size to 20. 16. Double-click between the column headings A and B to resize all of your data. |  |
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| ***Exercise #2 – Editing a Worksheet*** | ***Notes*** |
| 1. From the folder on your desktop, open the Excel file **Employee\_Salary**. 2. Ensure you are in the **Salary** worksheet. 3. To increase the width of the **Salary** column, right-click the column **D** heading, and then click **Column Width** 4. In the **Column Width** dialog box, in the **Column Width** box, ensure that the current column width is selected, type 12 and then click **OK**. 5. To increase the height of the first row, right-click the first row heading, and then click **Row Height**. 6. In the **Row Height** dialog box, in the **Row Height** box, ensure that the current row height is selected, type 40and then click **OK.** 7. To autosize the **Salary** column, point to the right border of the column D heading, and when a double-headed arrow appears, double-click the border. 8. To autosize the 1st row, click the 1st row heading, and then on the **Home** tab, in the **Cells** group, click **Format**, and then click **AutoFit Row Height**. 9. To merge the four column headings into one heading, select the range of cells **A1** to **D1**, and then on the **Home** tab, in the **Alignment** group, click the **Merge & Center** arrow, and then in the list, click **Merge & Center**. 10. To add a title to the table in the merged cell, in cell **A1**, type **Employee Salary Data** and the press ENTER. 11. To split the merged cells, select the cell **A1**; on the **Home** tab, in the **Alignment** group, click the **Merge & Center** arrow, and then click **Unmerge Cells**. |  |
| ***Exercise #3 – Formatting Numbers*** | ***Notes*** |
| 1. In the **Employee\_Salary** workbook, go to the **Salary** worksheet. 2. Select cells **D2** to **D35**. 3. On the **Home** tab, in the **Number** group, click the **Number Format** arrow next to **Number**.      1. In the **Number** tab **Category** list, select **Currency**. 2. Click on the drop-down arrow for the **Symbol** field and ensure that the **$** is selected. 3. Click **OK**.    To Apply a Special Number Format to a Cell:  1. To apply a number format to a cell, select the required cell. 2. On the **Home** tab, in the **Number** group, click the **Number Format** arrow. 3. In the **Format Cells** dialog box, on the **Number** tab, in the **Category** list, click **Special**. 4. From the **Type** list, select either **Zip Code**, **Zip Code +4**, **Phone Number**, or **Social Security Number**. 5. Click **OK**. |  |
| ***Adding and Editing Headers and Footers*** | ***Notes*** |
| * Headers and Footers appear at the top and bottom, respectively, of a printed worksheet and are typically used to add information such as page numbers, file name or a title. * Both Headers and Footers are divided into three sections: Left, Center, and Right.   **To Create a Header or Footer**   1. From the **Insert** tab in the **Text** group, select **Header & Footer**.      1. To select predefined Headers or Footers, select either **Header** or **Footer** from the **Header & Footer** group in the **Design** tab of the **Header & Footer Tools**.      1. To type your own information into a header or footer, skip Step 2 and simply select the area, **Left**, **Center**, or **Right**, and begin typing. 2. To adjust the height of the header or footer, click in a worksheet cell to close the **Header & Footer Tools,** and then select the **Page Layout** tab. 3. In the **Page Setup** group click the small arrow in the lower right corner to activate the **Page Setup** dialogue box. 4. In the **Margins** tab adjust the **Header** or **Footer** height by clicking up or down in the selected box. |  |
| ***Exercise # 4 – Adding and Editing Headers and Footers*** | ***Notes*** |
| 1. Open a blank worksheet. 2. To add a header to the worksheet, on the **Insert** tab, in the **Text** group, click **Header & Footer**. 3. In the center section of the header, type **Wide World Importers**. 4. To view the footer, on the **Header & Footer Tools Design** tab, in the **Navigation** group, click **Go to Footer**. 5. To add the page number in the center section of the footer, on the **Header & Footer Tools Design** tab, in the **Header & Footer Elements** group, click **Page Number**. 6. To edit the center section of the footer, click the center section of the footer, type **Employee Salary** and then click outside the footer. 7. To change the height of the header and footer, on the **Page Layout** tab, in the **Page Setup** group, click the **Page Setup** Dialog Box Launcher. 8. To change the header height, in the **Page Setup** dialog box, on the **Margins** tab, in the **Header** box, select the current height, and then type **0.4**. 9. To change the footer height, in the **Footer** box, select the current height, and then type **0.2**. 10. To save the changes, in the **Page Setup** dialog box, click **OK**. 11. To set different header and footer for odd and even pages, click the footer, then on the **Header & Footer Tools Design** tab, in the **Options** group select the **Different Odd & Even Pages** check box. |  |
| ***Data Form*** | ***Notes*** |
| Entering data directly into a table that is wide and that requires repeated scrolling across columns can be cumbersome. A data form provides an easy means to enter or display one complete row of information in a range or table without scrolling horizontally. Data Forms are used to add, find, change, and delete rows in a range or table.  **Adding the Data Form Button to the Ribbon**  The option to work with data forms usually does not default in Excel 2016. The Ribbon will need to be customized to include the Forms option.   1. On the **File** tab, click **Options**. 2. To customize the ribbon, in the **Excel Options** dialog box, click **Customize Ribbon**. 3. To add the data forms option on the ribbon, on the **Customize the Ribbon** page, in the **Choose command from** list, click **Commands Not in the Ribbon**. 4. To select the Form command, in the **Commands Not in the Ribbon** list, scroll down, and then click **Form**. 5. To create a custom group on the **Home** tab, on the **Customize the Ribbon** page, click **New Group**, and then click **Rename**. 6. To rename the group, in the **Rename** dialog box, in the **Display name** box, type **Data Forms** and click **OK**. 7. To add the Form command in the new group, on the **Customize the Ribbon** page, click **Add**, and then click **OK**. |  |
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| ***Exercise #5 – Using a Data Form to Add Data*** | ***Notes*** |
| 1. Select the Excel file **Store\_Data** from the Classwork folder on your desktop. 2. To open the data form, on the **Home** tab, in the **Data Forms** group, click **Form**. 3. To add data in the worksheet, in the **Task 1** dialog box, click **New**. 4. To enter the store ID, in the **StoreID** box, type **26**. 5. To enter the sales territory ID, in the **SalesTerritoryID** box, type **24**. 6. To add the store manager number, in the **StoreManager** box, type **58**. 7. To add the store name, in the **StoreName** box, type **Supreme**. 8. To add the entity ID, in the **EntityID** box, type **660**. 9. To add the state province name, in the **StateProviceName** box, type **Colorado**. 10. To close the dialog box and return to the worksheet, in the **Task 1** dialog box, click **Close**.   **Note:**  The data is displayed in the worksheet in row number 25. |  |
| ***Extending a Data Series*** | ***Notes*** |
| Excel makes it easy to fill progressive data (such as a series of numbers, dates, and months) in adjacent cells of a data series without typing the data in each cell of the range.  **To Fill a Range of Cells with a Number Series**   1. In the first cell of the range, type the first number of the series. 2. In the next cell in the range, type the next number of the series. 3. Select both of the cells, and then point to the lower-right corner of the second cell to display the fill handle (the filled-in square).      1. Click on the fill handle, and drag the mouse pointer across the required range of cells that you want to fill with the number series.   **NOTE**: Excel established a pattern using the first two numbers you added and fills in the remaining cells of the range with numbers that follow the same pattern.  Similarly, use the fill handle to extend a data series containing month names or dates. When filling a range of cells with a series of months or dates, type a month name or date in the second cell only if you are skipping months or dates in the series. If the series does not skip months or dates, only the first month or date needs to be typed for the fill handle to work correctly.  **To Fill a Range of Cells with the Months of the Year**   1. In the first cell, type January. 2. Point to the lower-right corner of that cell, and click and hold on the fill handle. 3. Drag the fill handle across the required range of cells. |  |
| ***Creating Named Ranges*** | ***Notes*** |
| When working in a worksheet, you might refer to certain cell ranges repeatedly. Instead of using cell references, you can specify names for cell ranges to easily refer to the ranges. You can create multiple named ranges in a workbook.  **To Create a Named Range by Using the Name Box**   1. Define the range by selecting the cells you want to name. 2. To name the range, type the range name in the **Name Box**, and then press **Enter**.   If you want to view a named range in your worksheet, click on the **Name Box** arrow, and then in the list of named ranges, select the required name. The corresponding range is selected in the worksheet.  **NOTE**: You can only specify names of ranges by using the Name box. It cannot be used to edit or delete named ranges.  **To Create a Named Range by Using Name Manager:**   1. Define the range by selecting the cells you want to name. 2. On the **Formulas** tab, in the **Defined Names** group, click **Name Manager**. 3. To define the range name, in the **Name Manager** dialog box, click **New**. 4. In the **New Name** dialog box, in the **Name** box, type the range name, and then click **OK**.   **NOTE**: The named range is displayed in the Name Manager dialog box.   1. In the **Name Manager** dialog box, click **Close**.   **To Create a Named Range by Using the Define Name Option:**   1. Define the range by selecting the cells you want to name. 2. On the **Formulas** tab, in the **Defined Names** group, click the arrow next to **Define Name**, and then click **Define Name**. 3. In the **New Name** dialog box, in the **Name** box, type the range name, and then click **OK**.   **To Create a Named Range by Using the Create from Selection Option:**   1. Define the range by selecting the cells you want to name. 2. On the **Formulas** tab, in the **Defined Names** group, click **Create from Selection**. 3. In the **Create Names from Selection** dialog box, under **Create names from values in the**, select an option of either top row, left column, bottom row, or right column as a name for the range.   **NOTE**: A name created using this procedure refers only to the cells that contain values and does not include the existing row and column labels.  **Managing Named Ranges**  When you have multiple named ranges in a workbook, you can manage them by using the **Name Manager** command. To view the options to manage named ranges, on the **Formulas** tab, in the **Defined Names** group, click **Name Manager**. The **Name Manager** dialog box displays the existing named ranges in the workbook and the options to manage the named ranges.  The following options in the Name Manager dialog box help you manage the named ranges in your workbook:   * **Edit**: You can edit the name of an existing named range. Select the required range in the **Name Manager** dialog box, and then click **Edit**. In the **Edit Name** dialog box, you can modify the name of the range and click **OK**. The new name is displayed in the list in the **Name Manager** dialog box. * **Delete**: To delete a named range, select the required named range, and then click **Delete**. In the Microsoft Excel message box, you can click **OK** to confirm the deletion. * **Filter**: You can use the **Filter** option to filter the named ranges created in the worksheet according to the required criteria. You can choose to filter the displayed named ranges by names with and without errors; by names scoped to the worksheet and workbook; or by defined and table names. |  |
| ***Exercise #6 – Creating and Editing a Named Range*** | ***Notes*** |
| 1. In the **Task 1** worksheet of the **Store\_Data** workbook, select the cell range **E2-E25**. 2. Name this range **EID**. 3. To view existing named ranges, on the **Formulas** tab, in the **Defined Names** group, click **Name Manager**. 4. To edit a named range, in the **Name Manager** box, select **SID**, and then click **Edit**. 5. Add a comment in the **Comment** field.   **NOTE:** In the **Edit Name** dialog box that opens you can change the name of a range, add or edit comments about the range, and edit the cells to which the name refers. |  |
| ***Conditional Formatting*** | ***Notes*** |
| Conditional formatting helps you visually answer specific questions about your data. A conditional format changes the appearance of a cell range based on conditions or criteria. If the condition is true, the cell range is formatted based on that condition. If the condition is false, the cell range is not formatted based on that condition. You can apply conditional formatting to a cell range, a Microsoft Excel table, or a PivotTable report.   1. Select the column to format. 2. In the **Home** tab click **Conditional Formatting**. 3. Select **New Rule**. 4. Select the appropriate criteria. 5. Click **OK**, and the column will automatically format based on the criteria chosen.   **Conditional Formatting Highlight Cell Rules**  The Highlight Cell Rules option allows the selection of a simple condition to be applies to each cell in the selected range. For each cell in which the condition evaluates to be true, a selected format type is applied.    **Conditional Formatting Top/Bottom Rules**  The Top/Bottom rules are applied to cells that satisfy a statistical criteria, such as cells with values greater than average. The formatting of any one cell in a selected range is dependent on the values of the other cells in that range.    **Conditional Formatting Data Bars**  Data Bars represent data graphically inside a cell, where the longest bar represents the highest value and the shorter bars represent smaller values.    **Conditional Formatting Color Scales**  Use Color Scales to format cells with two or three color gradients, where different color shades represent different cell values.    **Conditional Formatting Icon Sets**  Excel Icon Sets visually represent data with arrows, shapes, check marks, flags, rating stars, and other objects. |  |
| ***Exercise #7 – Conditional Formatting*** | ***Notes*** |
| 1. Open the Excel file **Product Imports 2015** from the Classwork folder on your desktop. 2. Highlight cells **B2 – F5**. 3. On the **Home** tab, in the **Styles** group, click **Conditional Formatting**. 4. Point to **Highlight Cells Rules** and click **Less Than**. 5. In the **Less Than** dialog box, in the **Format cells that are LESS THAN** box, type **13000**. 6. Tab to the next field and select **Red Text**, and then click **OK**. 7. To edit the conditional formatting, on the **Home** tab, in the **Styles** group, click **Conditional Formatting**, and then click **Manage Rules**. 8. In the **Conditional Formatting Rules Manager** dialog box, in the **Rule** list, ensure that the rule **Cell Value < 13000** is selected, and then click **Edit Rule**. 9. In the **Edit Formatting Rule** dialog box, in the **Edit the Rule Description** section, under **Format only cells with**, in the box to the right, select **=13000**, and type **=12000**. 10. To change the font style and the color of the text, click **Format**. 11. In the **Format Cells** dialog box, on the **Font** tab, under **Font style**, click **Bold;** click the **Color** arrow, and then under **Standard Colors**, click the **Orange** color, then click **OK**. 12. To apply the changes, in the **Edit Formatting Rule** dialog box, click **OK**. 13. In the **Conditional Formatting Rules Manager** dialog box, click **OK**. |  |
| ***Split a Worksheet*** | ***Notes*** |
| Splitting a worksheet into two or four separate windows allows easy comparison of data on the screen. Once a worksheet is split into separate panes, scroll the worksheet in each pane so that they display the sections to compare.  Once a split is added, the size of the window can be increased or decreased. Simply position the mouse over the split bar and drag the bar up/down (for horizontal panes), or left/right (for vertical panes).  **To Split a Worksheet into Two Horizontal Panes**   1. Click in the Column A cell of the row where the split will be added. 2. On the **View** tab, in the **Window** group, click **Split**.      1. Excel inserts a horizontal split above the cell that was selected.     **To Split a Worksheet into Two Vertical Panes**   1. Click in the Row 1 cell of the column where the split will be added. 2. On the **View** tab, in the **Window** group, click **Split**.      1. Excel inserts a vertical split to the left of the cell that was selected.     **To Split a Worksheet into Four Panes (Two Horizontal and Two Vertical)**   1. Click in the cell not in Column A or Row 1 where the split will be added. 2. On the **View** tab, in the **Window** group, click **Split**.      1. Excel inserts a horizontal split above the cell that was selected.     **To Remove a Worksheet Split**   1. Click on the **Split** button to turn the split functionality off.   **NOTE:** An alternative to clicking on the Split button again is to double-click on the split bar that was added. |  |
| ***Edit Multiple Worksheets at the Same Time*** | ***Notes*** |
| There may be times when changes need to be made to multiple worksheets at the same time. When multiple worksheets are selected, any editing change made, such as entering data into cells or deleting data from cells, is made to the same cells in all of the selected worksheets in exactly the same manner.  **To Edit Multiple Worksheets**   1. Click on the first worksheet tab. 2. Hold down the **Ctrl** key and select the additional worksheet tabs.   **NOTE:** The **Shift** key can be used instead of the **Ctrl** key if selecting a group of worksheet tabs that are next to each other. To quickly select all worksheet tabs in a workbook, right-click on any worksheet tab and click on **Select All Sheets**. |  |
| ***Themes*** | ***Notes*** |
| A theme is a combination of a color scheme, font scheme, and an effect. Excel includes a Themes gallery containing predefined themes that can be applied to worksheets to give them a consistent look. You can also create, modify, and delete custom themes.  **To Apply a Document Theme:**   1. On the **Page Layout** tab, in the **Themes** group, click **Themes**. 2. Under **Built-In** click on the document theme you want to use.   **Creating a Custom Theme**  You can create a custom theme in Excel by selecting the theme color, font, and effect. After selecting these components, save the theme. Any theme you save in Excel 2016 is available in all Microsoft Office 2016 programs, which helps you create similar looking documents, worksheets, and other files.    **To Create a Custom Color Scheme:**   1. To add a color to the theme, on the **Page Layout** tab, in the **Themes** group, click **Colors**. 2. Click **Customize Colors**. 3. In the **Create New Theme Colors** dialog box, under **Theme** colors, select the required colors for the different components. 4. In the **Name** box, specify a name for the color scheme, and then click **Save**.     **To Create a Custom Font Scheme:**   1. To add a font to the theme, on the **Page Layout** tab, in the **Themes** group, click **Fonts**. 2. Click **Customize Fonts**. 3. In the **Create New Theme Fonts** dialog box, specify the heading and body font in the **Heading font** and **Body font** drop-down boxes. 4. In the **Name** box, specify a name for the font scheme, and then click **Save**.     **To Add and Effect to a Theme:**   1. To add an effect to the custom theme, on the **Page Layout** tab, in the **Themes** group, click the **Effects** arrow. 2. Click the required effect.     **To Save the Custom Theme:**   * On the **Page Layout** tab, in the **Themes** group, click the **Themes** arrow, and then click **Save Current Theme**. * In the **Save Current Theme** dialog box, in the **File name** box, type a suitable name for the theme, and then click **Save**.   **NOTE**: The custom theme is now available in the Themes gallery in the Themes group. Do not change the location of where this new theme will be saved.  **To Delete a Custom Theme:**  You can delete a custom theme in Excel; you cannot delete predefined themes.   1. On the **Page Layout** tab, in the **Themes** group, click the **Themes** arrow. 2. Under **Custom**, right-click the theme you wish to delete. 3. Click **Delete**. 4. In the Microsoft Excel message box, click **Yes**. |  |

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| ***Table Styles*** | ***Notes*** |
| Besides themes, Excel also has styles that can personalize a worksheet. At first look it may seem that themes and styles in Excel serve the same function. Both features allow you to change colors, typefaces and style sets. The difference is that themes define the overall look of your document while styles offer different palette options that work with the main design.  **Themes vs. Styles**  Themes control the primary aspects of your document. Colors, typefaces, charts, tables, titles, shapes and diagrams are harmonized to give your document a smooth, professional appearance.  Styles change variables within the theme to allow for personalization. You can change the color and typeface combinations by selecting from available galleries that have been designed to complement the theme. While it is possible to customize a theme directly, styles allow you to make changes knowing that your selection will be well-matched and optimized for readability.  **Using Table Styles**  After you create a table in Excel, you can enhance the table by applying a table style.  **To View the Predefined Table Styles:**   1. Click a cell in the table. 2. Click on the **Table Tools Design** tab. 3. In the **Table Styles** group, click the **More** drop-down arrow to display all of the table style options.      1. As you hover your mouse over each table style options, the table in your worksheet will change to display that particular style. 2. Click on the specific table style to select it.   After selecting a style for the table, you can format the style elements by selecting options in the **Table Style Options** group. For example, you can select the **Total Row** check box if you want the worksheet to display the total number of rows present in the table.  You can also set a table style as the default style for all the tables in the document. To set a default style, in the **Table Styles** gallery, right-click the appropriate style, and then click **Set As Default**.  In addition to the predefined styles, you can also create custom table styles. In the **Table Styles** gallery, click the **New Table Style** option. In the **New Table Quick Style** dialog box, type a name for the style and format the required table elements. You can also set the new table style as the default style for the active document. After you save the new style, notice that it appears in the **Table Styles** gallery.  To modify a custom style, in the **Table Styles** gallery, right-click the custom style, and then click **Modify**. In the **Modify Table Quick Style** dialog box, make the required changes, and then click **OK**. To delete a style, right-click the style in the **Table Styles** gallery, and then click **Delete**. In the confirmation message box, click **OK**. |  |

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| ***Recent Workbooks List*** | ***Notes*** |
| In the **File** tab (also known as the **Backstage** view), on the **Open** page, **Recent Workbooks** displays the most recently used documents. If you open a workbook, the workbook name appears at the top of the list.  You can specify the number of workbooks that Excel displays in the **Recent Workbooks** list. Go to the **File** tab, then **Options**. In the **Advanced** section, scroll down to the **Display** section and change the **Show this number of Recent Workbooks** box.  In addition, if you want a particular workbook to always appear in the **Recent Workbooks** list, you can pin it to the list. To pin the workbook, in the **Recent Workbooks** list, click the pin next to the required workbook. |  |
| ***Additional Resources*** | ***Notes*** |
| **To contact me directly:**  Brett Neal – Professional Development & Training  802-656-0630  [Brett.Neal@uvm.edu](mailto:Brett.Neal@uvm.edu)  **NOTE**: If you are having problems with a spreadsheet, sending me a copy will make it easier for me to help you!  **Additional Resources:**  To view all classes offered by Professional Development & Training, go to our website <http://www.uvm.edu/develop>. Here you can view the class schedule by date, read class descriptions, learn about the certificate programs we offer, and find PeopleSoft Mini Manuals. |  |