



Using Microsoft® Office Excel 2007 - Course Outline

1. Creating and Manipulating Data

1.1. Create data by using auto-fill.

1.1.1. Fill a series.

- Fill a series without formatting.
- Fill a series with formatting only.

1.1.2. Copy a series.

1.2. Ensure data integrity.

1.2.1. Restrict the type of data that can be entered in cells.

- Create a question in which the candidate must stipulate that only numbers less than x can be entered.
- Create a question in which the candidate must enable only data of a specified character length to be entered.

1.2.2. Restrict the values entered in cells to a list.

- Create a drop-down list.

1.2.3. Remove duplicate rows from a spreadsheet.

- Select which columns are used to determine duplication.

1.3. Find data and modify cell contents.

1.3.1. Cut, copy, and paste data.

- Transpose data during paste.
- Paste data from a bordered cell without pasting borders.
- Paste values instead of the formula (and other paste special functions).

1.3.2. Move cell contents.

1.3.3. Find and replace data by using the Find and Replace commands.

1.4. Change the view of a worksheet.

1.4.1. Change the view within a single window.



- Change the zoom level.
 - Change the view to normal, page layout, and page break preview.
 - Freeze and unfreeze panes.
 - Hide the Ribbon to maximize space.
- 1.4.2. Split a window.
- 1.4.3. Open a new window.

1.5. Manage worksheets.

- 1.5.1. Copy a worksheet.
- Within a workbook.
 - Between workbooks.
- 1.5.2. Reposition worksheets within a workbook.
- 1.5.3. Rename a worksheet.
- 1.5.4. Hide and unhide a worksheet.
- 1.5.5. Add or delete a worksheet.

1.6. Sort and filter data.

- 1.6.1. Sort data by single or multiple criteria
- 1.6.2. Filter data by using AutoFilter.
- 1.6.3. Filter data by using Custom AutoFilter.
- 1.6.4. Filter and sort data by using conditional formatting.
- 1.6.5. Filter and sort data by using cell attributes.

2. Formatting Data and Content

2.1. Format worksheets.

- 2.1.1. Use themes to format worksheets.
- Apply a theme to a workbook.
 - Modify and save a theme.
- 2.1.2. Show and hide gridlines and headers.
- Create a question in which candidates have to hide the gridlines for presentation purposes, such as displaying a table without showing all the gridlines on the worksheet.



- Create a question in which candidates have to hide the headers for presentation purposes, such as displaying a table without showing all the headers on the worksheet.
- 2.1.3. Change the tab color of a worksheet.
- 2.1.4. Format a worksheet background.
- Add a color to a background.
 - Add a watermark to a background.

2.2. Modify rows and columns.

- 2.2.1. Format entire rows and columns.
- Create a question in which candidates have to format all the cells in a row or column simultaneously.
- 2.2.2. Insert and delete rows and columns.
- Insert a column or row in a specific relation to an existing column or row, such as above, below, left, or right.
 - Insert multiple rows or columns simultaneously.
- 2.2.3. Hide and unhide rows and columns.
- Create a question in which there are hidden columns, and candidates need to do something in one of the hidden columns.
 - Create a question in which candidates need to hide rows to prevent certain data from showing.
- 2.2.4. Modify row height and column width.
- Change by using AutoFit.
 - Change to a specified value.

2.3. Format cells.

- 2.3.1. Apply number formats that are appropriate to cell values.
- Format the values in the cell as currency, with a specified number of decimal places.
 - Format the values in the cell as a date.
- 2.3.2. Apply and modify cell styles.
- Format cells by using Quick Styles.
 - Format cells by using other methods.
- 2.3.3. Insert and delete cells.



- Determine cell movement that results from cell deletion, such as move up and move down.
- 2.3.4. Wrap text in cells.
 - 2.3.5. Merge and split cells.
 - 2.3.6. Add and remove cell borders.
 - 2.3.7. Insert and remove hyperlinks.

2.4. Format data as a table.

- 2.4.1. Apply Quick Styles to a table.
 - Apply and change Quick Styles.
 - Add or remove a header row.
 - Band the rows or columns in a table. (Note: the table format must include banded rows for this setting to make a visible change.)
 - Emphasize the first column or last column in a table.
 - Change a table with banded rows to have banded columns.
- 2.4.2. Create a total row in a table.
 - Add a total row to a table.
 - Change the summary function of a total row in a table.
- 2.4.3. Insert and delete rows and columns in a table.

3. Constructing and Modifying Formulas

3.1. Reference data.

- 3.1.1. Create formulas by using absolute and relative cell references.
 - Relative reference: Create a formula that, when copied to an adjacent cell, updates its cell references to reflect its new location.
 - Absolute reference: Create a formula that maintains its reference point when copied to a new location.
 - Create a formula with mixed relative and absolute references.
 - Test that a candidate can troubleshoot a formula.
- 3.1.2. Create formulas that reference data from other worksheets or workbooks.



- Create a summary sheet that has four lines titled for four fiscal quarters' total sales figures. These sales figures are on other worksheets within the book. Test the candidate's ability to pull the sales figures from the cells on the other sheets to the summary sheet.
- 3.1.3. Manage named ranges.
- Select a range of cells and name it.
 - Modify a named range by adding a column.
 - Delete a named range.
- 3.1.4. Use named ranges in formulas.
- Create a formula for sales figures that summarizes the sales figures for three teams. Ensure those sales figures are already in three named ranges.
- 3.2. Summarize data by using formulas.**
- 3.2.1. Summarize data by using the following functions: SUM, COUNT, COUNTA, AVERAGE, MIN, and MAX.
- Create a question for each of the above functions.
- 3.3. Summarize data by using subtotals.**
- 3.3.1. Create and modify list ranges.
- Create a formula that finds the average of displayed values in a filtered list.
 - Create a formula that finds the sum of displayed values in a filtered list.
 - Create a formula that finds the mean or count of displayed values in a filtered list.
- 3.4. Conditionally format data by using formulas.**
- 3.4.1. Conditionally format data by using the following functions: SUMIF, SUMIFS, COUNTIF, COUNTIFS, AVERAGEIF, AVERAGEIFS.
- Create a question for each of the above functions.
- 3.5. Look up data by using formulas.**
- 3.5.1. Look up data by using the VLOOKUP and HLOOKUP functions.
- Create a question that uses VLOOKUP to locate values associated with an exact match (FALSE).
 - Create a question that uses VLOOKUP to locate a cell in a list that has the value closest to the target value (TRUE).



- Create a question that uses HLOOKUP to locate values associated with an exact match (FALSE).
- Create a question that uses HLOOKUP to locate values associated with an exact match (FALSE).

3.6. Use conditional logic in formulas.

3.6.1. Include the following functions in formulas: IF, AND, OR, NOT, IFERROR.

- Create a question that uses each of the listed arguments individually.

3.7. Format or modify text by using formulas.

3.7.1. Format or modify text by using the following functions: PROPER, UPPER, LOWER, SUBSTITUTE.

3.7.2. Convert text to columns.

3.8. Display and print formulas.

- Write a question where they have to reveal formulas.

4. Presenting Data Visually

4.1. Create and format charts.

4.1.1. Select appropriate data to include in a chart.

- Select the appropriate data to create a column chart.

4.1.2. Select a chart type appropriate to the data.

- Example: Create a chart that shows what part of the budget the x department uses.
- Create a chart that shows a trend over time.
- Create a chart that compares two data sets over time.

4.1.3. Format a chart by using Quick Styles.

- Use Quick Styles.
- Use Quick Layouts.

4.2. Modify charts.

4.2.1. Add or remove chart elements.

- Add axis information.
- Add titles.
- Add legends.



- Add percentages.
- 4.2.2. Move and size charts.
 - Move an embedded chart to a new sheet.
 - Move an embedded chart from a chart sheet to a worksheet (embed as object).
 - Size a chart by increasing length or width.
 - Size a chart while maintaining scale.
- 4.2.3. Change chart type.
- 4.3. Apply basic conditional formatting.**
 - 4.3.1. Manage conditional formats by using the rule manager.
 - Create a new conditional formatting rule.
 - Edit an existing conditional formatting rule.
 - Delete a conditional formatting rule.
 - 4.3.2. Allow more than one rule to be true.
 - 4.3.3. Apply the following conditional formats: highlight, top and bottom rules, data bars, color scales, and icon sets.
- 4.4. Insert and modify illustrations.**
 - 4.4.1. Insert and modify a picture.
 - Insert a picture from a file.
 - Modify a picture.
 - 4.4.2. Insert and modify SmartArt graphics.
 - Insert SmartArt graphics.
 - Modify SmartArt graphics by using Quick Styles.
 - Add effects to SmartArt graphics.
 - 4.4.3. Insert and modify a shape.
- 4.5. Outline data.**
 - 4.5.1. Group and ungroup data.
 - Create a question in which candidates need to group data in column 2 by the titles in column 1.
 - Create a question in which candidates are presented with collapsed grouped data, and they need to copy the data that is hidden. This tests that they know that the data is collapsed, and that they know they can expand the data.



- Create a question in which they are presented with collapsed grouped data and they need to ensure that all data is visible at all times by expanding and ungrouping the data.
- 4.5.2. Subtotal data.
- Create a question in which data is grouped, and ask candidates to add subtotals to each group without using the AutoSum button.



5. Collaborating and Securing Data

5.1. Manage changes to documents.

5.1.1. Insert, view, modify, and resolve tracked changes.

- Begin tracking changes.
- Resolve tracked changes.

5.1.2. Insert, view, modify, and delete comments.

- Insert a comment.
- Edit a comment.
- Delete a comment.

5.2. Protect and share workbooks.

5.2.1. Protect workbooks and worksheets.

- Prevent changes to a worksheet.
- Allow users to edit ranges.
- Require a password to open a workbook.

5.2.2. Enable workbooks to be changed by multiple people simultaneously.

- Test that candidates know that they must share a workbook by using the share workbook command.

5.2.3. Send a workbook by using e-mail.

5.3. Prepare workbooks for distribution.

5.3.1. Remove private and other inappropriate data from documents.

- Create a question in which candidates must determine that Document Inspector should be used.

5.3.2. Restrict permissions to a document.

5.3.3. Add keywords and other information to the document properties.

- Create a question in which candidates open the properties within Excel and add keywords, author name, and other information.

5.3.4. Digitally sign a document.

- Add a digital signature.

5.3.5. Mark as final.

- Create a question in which candidates certify and protect the content from changes by marking as final.



5.4. Save workbooks.

- 5.4.1. Save a workbook for use in a previous version of Excel, and find out if the file contains features unsupported in previous versions.
- Write a question that asks which feature of a workbook is incompatible with a previous version. Candidates must run Compatibility Checker to find out.
 - Write a question that says they must maintain a specific feature, and ask if they can save it to the Excel 97-2003 format.
- 5.4.2. Save a workbook as a template, a PDF document, a Web page, a macro-enabled document, or other appropriate format.
- Note: these questions should require the candidate to determine and select the correct format. Questions should not state "Save as x format."
 - Save as a template.
 - Save as a PDF.
 - Save as a Web page.
 - Save as a macro-enabled workbook.

5.5. Prepare a worksheet or workbook for printing.

- 5.5.1. Define the area of a worksheet to be printed.
- Write a question in which candidates must set a print area on a single sheet. For example, set the print area to print a table only.
- 5.5.2. Insert or move a page break.
- Write a question in which they need to print four columns on a page, and the page break is artificially set after the third column. They should need to preview and change the page break to the fourth column.
- 5.5.3. Set margins.
- Have candidates set the margins for the worksheet to specified values.
- 5.5.4. Add and modify headers and footers.
- Write a question in which candidates need to change the date or other information in a footer.
- 5.5.5. Change the orientation of a worksheet.
- 5.5.6. Scale worksheet content to fit a printed page.