

Lesson Notes for Microsoft Excel

Lesson 7: Organizing Data

| Slide | Topic/Exercise Heading | Obj | Instructor Notes | Timing (mins) |
|-------|--|--|--|---------------|
| | The Microsoft Office Specialist Exam Objectives listed at the right are covered in this lesson. | 1.2.2 2.3.1 2.3.2 3.1.1 3.1.2 3.1.3 3.2.1 3.2.2 3.2.3 3.3.1 3.3.2 4.1.2 | Navigate to named cells, ranges, or workbook elements Define a named range Name a table Create Excel tables from cell ranges Apply table styles Convert tables to cell ranges Add or remove table rows and columns Configure table style options Insert and configure total rows Filter records Sort data by multiple columns Reference named ranges and tables in formulas | |
| 3 | Lesson Objectives | | Review the objectives on Slide 3 with students so they know what will be covered in the lesson. | 5-10 |
| 4 | Working with Named Ranges – Creating Named Ranges – Using Named Ranges | 2.3.1 4.1.2 | It is very helpful to use named ranges in formulas. <ul style="list-style-type: none"> Working with formulas is often one of the most challenging areas of learning to use Excel. It is easier to work with data and formulas by creating named cell ranges instead of having to create formulas using row and column identifiers because students have been trained to create mathematical formulas through words rather than cell identifiers. You may wish to demonstrate how easily you can name a range. | 15-20 |
| | Learn to create range names | 2.3.1 4.1.2 | Students create range names and set up formulas using those range names. | 20-30 |
| 5 | – Modifying and Deleting Named Ranges | 2.3.1 | Slide 5 shows the Name Manager dialog box and instructions for modifying and deleting named ranges. <ul style="list-style-type: none"> Warn students that they should use caution when deleting range names because it can cause formulas that use the ranges names to generate an error. | 5-10 |
| | Learn to modify named ranges | 2.3.1 | Students use the Name Manager to update and delete range names. | 10-15 |
| 6 | Go To a Cell or Named Range | 1.2.2 | It is very easy to jump to a specific cell or a named range using the Go To feature. | 10-15 |

Lesson Notes for Microsoft Excel

Lesson 7: Organizing Data

| Slide | Topic/Exercise Heading | Obj | Instructor Notes | Timing (mins) |
|-------|---------------------------------------|-------------------------|--|---------------|
| | | | Slide 6 shows the Go To dialog box and the Name Box. | |
| | Learn to use the Go To feature | 1.2.2 | Students jump to a cell or named range using the Go To dialog box and the Name Box. | 5-10 |
| 7-8 | Using Tables – Creating a Table | 3.1.1 | By defining a range of cells as a table, you indicate to Excel that this group belongs together as a unit. Explain to students that a table is not the same as a named range of data. In order to create a table from worksheet data, the data must: <ul style="list-style-type: none"> • be contiguous (no blank rows or columns in the range of cells) • be arranged in row order with a header at the top of each column and the data listed below Once a table is created, Excel activates an AutoFilter icon next to each column title and applies the current active theme. <ul style="list-style-type: none"> • You may wish to demonstrate the creation of a table to students. Slide 8 shows a worksheet table. | 10-15 |
| 9 | – Naming and Using Tables in Formulas | 2.3.2 4.1.2 | Point out the importance of referencing individual columns in tables to avoid unintended results, especially if the tables contain columns with date, time, or text data. If a formula references the entire table, the date and time data will be treated as numeric data and will be included in the formula calculations. | 5-10 |
| 10 | – Configuring Table Style Options | 3.1.2 3.2.2 3.2.3 | Review the available table style options in the Table Tools Design tab on the Ribbon. | 5-10 |
| | Learn to create tables | 3.1.1 2.3.2 3.2.3 | Students create a table, assign a name to the table, and add a total row at the bottom. | 15-20 |
| 11-12 | – Modifying Table Data | 3.2.1 | After a table is created, you can add or delete rows and columns of data. | 5-15 |
| | Learn to modify table data | 3.2.1 | Students insert rows and columns of data into different parts of a table. | 15-20 |

Lesson Notes for Microsoft Excel

Lesson 7: Organizing Data

| Slide | Topic/Exercise Heading | Obj | Instructor Notes | Timing (mins) |
|-------|--|----------------|---|---------------|
| 13 | – Formatting Table Data | 3.1.2 3.2.2 | The theme selected for the workbook is the theme that will be applied to all tables created in the workbook. <ul style="list-style-type: none"> Point out some of the extra features that can be activated and deactivated on the Table Tools Design tab. Explain to students that “banding” rows to show different color shades for alternating rows is often used to enhance readability. | 10-20 |
| | Learn to format table data | 3.1.2 3.2.2 | Students work with table styles and use different table formatting options. | 10-15 |
| 14 | Converting a Table to a Cell Range | 3.1.3 | Data in a table can be converted back to a regular set of rows and columns. | 5-15 |
| | Learn to convert a table | 3.1.3 | Students convert a table to a regular range of cells. | 5-10 |
| 15 | Sorting Data – Sorting by Single-Level Data | | Excel provides a sorting tool that enables you to change the sequence of the data based on the values in selected columns. <ul style="list-style-type: none"> You can sort and resort data as many times as you need. Data can be sorted by columns or rows. In a single-level sort, data is sorted by the values in one column. <ul style="list-style-type: none"> Depending on the type of data you are sorting (Text or Numbers), the Ribbon menu will present appropriate options such as A-Z or smallest to largest, for example. | 10-15 |
| 16-18 | – Sorting by Multi-Level Data | 3.3.2 | You can also sort by multiple columns at once. <ul style="list-style-type: none"> You may wish to demonstrate how to perform a multi-level sort to students so they can visualize what you are trying to explain. Slide 16 shows a multi-level sort. Slides 17 and 18 describe features in the Sort dialog box. | 10-20 |
| | Learn to sort data | 3.3.2 | Students sort a table of data using one column as a sort key. Students will then sort the data again using multiple columns. | 15-20 |
| 19-24 | Filtering Information | 3.3.1 | Explain that while sorting data is helpful, you may still have to look through a lot of data to find what you want. | 10-20 |

Lesson Notes for Microsoft Excel

Lesson 7: Organizing Data

| Slide | Topic/Exercise Heading | Obj | Instructor Notes | Timing (mins) |
|-------|------------------------------------|-------|---|----------------|
| | | | <ul style="list-style-type: none"> Filtering helps you find data very quickly. Comparison operators (equal to, greater than, less than) can be used to filter data. You may wish to demonstrate the effects of filtering so students can visualize what you are trying to explain. Slide 24 shows filtered data. | |
| | Learn to filter information | 3.3.1 | Students use AutoFilters on a table of data. | 15-20 |
| 25 | Lesson Summary | | Review the objectives with students to remind them of what was covered in the lesson. Provide a short summary of the features and give students a chance to complete exercises if they did not complete them earlier. | 10-15 |
| | | | Total (Hours) | 4.0-6.0 |