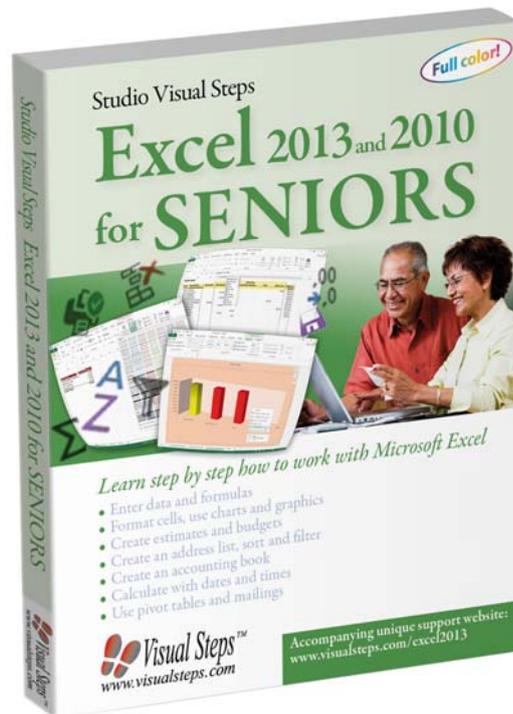


Teachers' Manual

for

Excel 2013 and 2010 for Seniors



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 **Visual Steps**™
www.visualsteps.com

1. Introduction

This course manual assumes a lesson structure consisting of nine points. These points have been divided into three groups. Each class period will generally have the following structure:

- A Introduction**
1. Make sure the students are ready for class to begin.
 2. Explain this lesson's objectives.
 3. Review any necessary background knowledge.
- B Instruction**
1. Present the subject matter.
 2. Help the students learn the material.
 3. Have the students demonstrate the requested techniques.
 4. Give feedback on the demonstrations.
- C Conclusion**
1. Assess the final results of the learning process (testing).
 2. Recap and demonstrate uses for what's been learned.

This lesson structure should be followed step-by-step from start to finish. Steps B1 through B4 will be frequently repeated, as the subject matter will be offered in small chunks (B1).

This means there will be many points at which the student might need some help (B2).

This also means that during a class, students will learn multiple techniques they can demonstrate (B3), to which the instructor should respond with approval or corrective comments as needed (B4).

On the next page you will see the **lesson structure** again, this time expanded with extra information to clarify the content of and "why" behind each step. This structure will also be followed in explaining the details for the eleven or more class meetings later in this manual. You can split the lessons which cover a longer chapter if needed. You may wish to handle the material in these chapters in two separate sessions.

Plan to use the available class time as follows:

- Introduction 10-15%
- Instruction 60-70%
- Conclusion 20-25%

Lesson Structure

A Introduction **1. Make sure the students are ready for class to begin.**

The instructor can ask for silence, close the door, write an announcement on the board, or in some other way draw attention to the coming lesson.

2. Explain this lesson's objectives.

It is important for both student and instructor to know exactly what a lesson's desired results are. The student's work attitude, for example, depends upon whether he needs to recognize, commit to memory, or apply the material being presented.

Simply listing the subjects that will be covered is not enough. The instructor must explain them in recognizable terms.

3. Review any necessary background knowledge.

At the start of each lesson, the instructor should make sure the new information will connect to and build upon previously acquired concepts and skills. In order to do so, the instructor must first help the students recall (activate) the relevant knowledge.

B Instruction **1. Present the subject matter.**

The heart of the learning process is the offering of information by the instructor or by the textbook.

2. Help the students learn the material.

The instructor doesn't stand at the front of the class during the learning process, but rather moves around, observing the students' activities and offering support where necessary. The didactic approach being applied can be characterized as guided experiential learning.

3. Have the students demonstrate the requested techniques.

The point here is not to check whether students have done their homework, but rather to provide an opportunity for practicing the desired (final) techniques. Specific questions will give the students the opportunity to demonstrate to themselves and to the instructor that they understand or can apply the information.

4. Give feedback on the demonstrations.

It's instructive and reinforcing to provide students with feedback on their demonstrations of what they've learned.

Feedback on a student's execution of techniques often occurs naturally: it either works or it doesn't. In any case, feedback should provide information about correct execution of the techniques that are visible during the learning process.

C Conclusion 1. Assess the final results of the learning process.

The point of this step is to determine whether the student has accomplished the educational objectives, and whether he can execute the desired techniques with confidence. There are various forms of testing available for this: completing an exercise, for example, or answering questions. They don't all have to be given at the same time. Naturally, the tests should be tailored to the stated educational objectives.

2. Recap and demonstrate uses for what's been learned.

This last step is focused on helping the material sink in for the long term. As a result, this information should bridge multiple lessons and focus on making connections among different topics.

2. Previous Knowledge

A minimum of prior computer experience is assumed for this course. Students need to be able to:

Windows:

- start and stop *Windows*;
- click, right-click, double-click, and drag with the mouse;
- open and close programs;
- use a scrollbar;
- use tabs.

Basic text editing skills:

- type a text;
- correct errors;
- create and delete a new line;
- move the cursor;
- select text;
- save a document and open it again;
- create a new document.

If your students do not have these skills, you can use one of our beginner's books. For more information about our current titles, visit the catalog page on our website: www.visualsteps.com

3. General

Technical matters such as proper installation of *Windows 8.1*, *Windows 7* or *Windows Vista* and *Excel 2013* or *2010* are essential for this course.

It is important that the exercise material has been downloaded from the website accompanied with this book www.visualsteps.com/excel2013 to the user's computer. The copying of the exercise material can be done by the students themselves, if you prefer.

Students will also need a working printer. If you prefer, you could skip these actions.

4. Lesson Plan

There are eleven lessons, covering Chapters 1 through 11 of the book.

Lesson 1 Chapter 1 Cells and Formulas

Lesson 2 Chapter 2 Worksheets and Workbooks

Lesson 3 Chapter 3 Printing

Lesson 4 Chapter 4 Charts

Lesson 5 Chapter 5 Using Excel as a Database

Lesson 6 Chapter 6 Estimates and Budgets

Lesson 7 Chapter 7 Calculating with Time and the Search Function

Lesson 8 Chapter 8 Car Expenses

Lesson 9 Chapter 9 Subtotals and Pivot Tables

Lesson 10 Chapter 10 Tabular Account Book

Lesson 11 Chapter 11 More Functions and Macros

If desired, you can split or combine lessons.

First Meeting

A Introduction 1. Make sure the students are ready for class to begin.

See the general lesson structure.

2. Explain this lesson's objectives.

Present the following information first, writing the words in bold somewhere in large letters so that everyone can see them well (on a blackboard, for example).

Microsoft Excel is a **spreadsheet program** used for calculating figures. The word *spread* indicates that the text is spread out over multiple columns, and even multiple sheets. A spreadsheet is actually a **large sheet of squared paper**. You can write down something in each box (**cell**). This can be a number, an amount or text. It can also be an underlying formula that performs a certain calculation.

A spreadsheet is an ideal tool for creating a **summary of calculations**. For example, you can use the program to keep track of your monthly or weekly household expenditures or the annual costs of your car, or to compute the profitability of your investments, or provide an overview of the annual membership fees of a club.

These various types of data analyses do not really differ with regard to the nature of the data and the calculations, only the actual values change. If you create a data summary in a spreadsheet program and enter the correct formulas, the totals will be quickly and automatically computed without any errors. This can save you a lot of work when preparing annual reports or estimates for a company or a club. There are plenty of other useful tasks that can be done at home with this program too.

**In this lesson, you'll learn how to do the following:
(also write this somewhere that's easy for the students to read)**

- set up the *Quick Access* toolbar and adjust the ribbon;
- distinguish between columns, rows, and cells;
- select cells;
- move the cursor;
- enter numbers and text;
- change the column width;
- add up numbers and enter formulas;
- copy formulas;
- use *Sum* for automatic additions;
- save workbooks.

3. Review any necessary background knowledge.

Since this is the first class, you can't refer back to previous classes.

B Instruction 1. Present the subject matter.

Pages 19-45.

2. Help the students learn the material.

See the general lesson structure.

3. Have the students demonstrate the requested techniques.

See the general lesson structure.

4. Give feedback on the demonstrations.

See the general lesson structure.

C Conclusion 1. Assess the final results of the learning process.

Briefly discuss any frequently occurring problems you observed during B Instruction.

Have the students do exercise **1 *Calculating Totals*** on page 46. They may use *Appendix B "How Do I Do That Again?"* of the book.

Have the students do exercise **2 *Overwrite a Formula*** on page 48. They may use *Appendix B "How Do I Do That Again?"* of the book.

2. Recap and demonstrate uses for what's been learned.

Go back to the objectives and read them out loud again. Encourage the students to practice the information and skills they've learned at home.

Extra material Background information and Tips on page 49-52.

Second Meeting

A Introduction 1. Make sure the students are ready for class to begin.

See the general lesson structure.

2. Explain this lesson's objectives.

Present the following information first, writing the words in bold somewhere in large letters so that everyone can see them well (on a blackboard, for example).

When you work with data in *Excel* the type of file you are using is called a **workbook**. A workbook can contain multiple **worksheets**. Just to simplify things a bit, we have used the term *workbooks* in the first lesson, while we were actually using a single *worksheet*.

From now on we will use the correct terminology:

- *worksheet* when we mean a single, specific sheet;
- *workbook* when we mean the entire file, which may include several worksheets.

By using multiple worksheets you can **arrange and order your data within a workbook**. For example, you can enter a company's turnover, costs, and profits in different sheets and save them all within one workbook. You can also distribute the various categories of a club's members among multiple worksheets within a single workbook. Until now you have only used Sheet1. In this lesson you will be **using the other sheets** as well.

A **household recordkeeping book** will often contain expenses that are not paid on a monthly basis but only annually. You can add up these annual costs on a separate worksheet, so you can set aside a certain monthly amount for these expenses. Then you can add them to the monthly expenses on *Sheet1*.

**In this lesson, you'll learn how to do the following:
(also write this somewhere that's easy for the students to read)**

- open worksheets;
- distinguish between worksheets and workbooks;
- subtract, multiply, and divide;
- round off figures;
- use data from another worksheet;
- enter formulas yourself;
- give worksheets a name;
- move worksheets;
- add extra worksheets;
- delete worksheets;
- save workbooks.

3. Review any necessary background knowledge.

Briefly review the material from the previous class, for instance:

- set up the *Quick Access* toolbar and adjust the ribbon;
- distinguish between columns, rows, and cells;
- select cells;
- move the cursor;
- enter numbers and text;
- change the column width;
- add up numbers and enter formulas;
- copy formulas;
- use *Sum* for automatic additions;
- save workbooks.

B Instruction 1. Present the subject matter.

Pages 53-71.

2. Help the students learn the material.

See the general lesson structure.

3. Have the students demonstrate the requested techniques.

See the general lesson structure.

4. Give feedback on the demonstrations.

See the general lesson structure.

C Conclusion 1. Assess the final results of the learning process.

Briefly discuss any frequently occurring problems you observed during B Instruction.

Have the students do exercise **1 Copying** on page 72. They may use *Appendix B "How Do I Do That Again?"* of the book.

2. Recap and demonstrate uses for what's been learned.

Go back to the objectives and read them out loud again. Encourage the students to practice the information and skills they've learned at home.

Extra material Background information and Tips on pages 75-78.

Third Meeting

A Introduction 1. Make sure the students are ready for class to begin.

See the general lesson structure.

2. Explain this lesson's objectives.

Present the following information first, writing the words in bold somewhere in large letters so that everyone can see them well (on a blackboard, for example).

In many cases, you will want to print your calculation models on paper as well. If the entire worksheet does not fit on your screen, it may be necessary to print it out on paper, since this will provide a better overview. Besides, you can also use a printed worksheet to save a paper copy of a certain point in time for your records. And printouts can be used for reports or written presentations as well. If you have a color printer you can make full use of the color options offered by *Excel*. If you print an *Excel* file with a black-and-white printer you need to take into account that the colors will be replaced by gray shades. The clear view you have on your screen will not be as clear when you print the worksheet on paper. In that case it is better to use various formatting options, such as bold, italic, underlined, or different fonts.

When you print a worksheet you also need to take into account the size of the model. If the worksheet is very large, it may not fit on legal or letter-sized paper. Before you start printing you can check the print preview and adjust the printer settings as needed.

**In this lesson, you'll learn how to do the following:
(also write this somewhere that's easy for the students to read)**

- view the print preview;
- print horizontally or vertically;
- create a grid;
- print worksheets;
- print selected parts of a worksheet;
- set the print area;
- hide rows and columns;
- display hidden rows and columns;
- insert rows and columns;
- delete rows and columns;
- enlarge and diminish prints;
- print titles on all of the pages;
- block titles on the screen.

3. Review any necessary background knowledge.

Briefly review the material from the previous class, for instance:

- open worksheets;
- distinguish between worksheets and workbooks;
- subtract, multiply, and divide;
- round off figures;
- use data from another worksheet;
- enter formulas yourself;
- give worksheets a name;
- move worksheets;
- add extra worksheets;
- delete worksheets;
- save workbooks.

B Instruction 1. Present the subject matter.

Pages 79-105.

2. Help the students learn the material.

See the general lesson structure.

3. Have the students demonstrate the requested techniques.

See the general lesson structure.

4. Give feedback on the demonstrations.

See the general lesson structure.

C Conclusion 1. Assess the final results of the learning process.

Briefly discuss any frequently occurring problems you observed during B Instruction.

Have the students do **exercise 1 Enlarge a Print** on page 106. They may use *Appendix B “How Do I Do That Again?”* of the book.

Have the students do **exercise 2 Set the Print Area** on page 106. They may use *Appendix B “How Do I Do That Again?”* of the book.

Have the students do **exercise 3 Hide Columns** on page 107. They may use *Appendix B “How Do I Do That Again?”* of the book.

Have the students do **exercise 4 Insert Columns** on page 107. They may use *Appendix B “How Do I Do That Again?”* of the book.

2. Recap and demonstrate uses for what’s been learned.

Go back to the objectives and read them out loud again. Encourage the students to practice the information and skills they’ve learned at home.

Extra material Background information and Tips on pages 109-110.

Fourth Meeting

A Introduction 1. Make sure the students are ready for class to begin.

See the general lesson structure.

2. Explain this lesson's objectives.

Present the following information first, writing the words in bold somewhere in large letters so that everyone can see them well (on a blackboard, for example).

The popular saying 'a picture is worth a thousand words' certainly applies to *Excel*. A worksheet can become an indistinct mass of text and numbers, which makes it difficult to understand and is less pleasing to the eye. You may be able to sort things out, but outsiders will have a hard time unravelling your worksheet. In these cases, a **chart** (also called diagram or graph) may be a good solution. At a glance, you can see ascending and descending curves, or highs and lows.

Excel lets you create a well-arranged chart with just a few mouse clicks. You can choose between various presentation **styles** (such as **circles, columns and lines**) and **layout options** (**colors, backgrounds and labels**). In this way, you can quickly and easily create an attractive chart for your report or presentation.

In this lesson you will learn how to **create and assemble a chart**. You will also get to know a few important types of charts. There are many types of charts to choose from, but not every chart will be suited to the data you use. If you prefer another format, you will see how easy it is to change the chart when needed.

**In this lesson, you'll learn how to do the following:
(also write this somewhere that's easy for the students to read)**

- select parts of the worksheet in order to create a chart;
- insert titles above charts;
- distinguish column, line, and pie charts;
- change the type of chart in retrospect;
- enter names for chart sheets;
- create a single chart with different areas on the worksheet;
- change the colors of a chart;
- use color effects;
- apply 3D effects;
- change the legend;
- add titles;
- change the scaling;
- change the measurement units.

3. Review any necessary background knowledge.

Briefly review the material from the previous class, for instance:

- view the print preview;
- print horizontally or vertically;
- create a grid;
- print worksheets;
- print selected parts of a worksheet;
- set the print area;
- hide rows and columns;
- display hidden rows and columns;
- insert rows and columns;
- delete rows and columns;
- enlarge and diminish prints;
- print titles on all of the pages;
- block titles on the screen.

B Instruction 1. Present the subject matter.

Pages 111-151.

2. Help the students learn the material.

See the general lesson structure.

3. Have the students demonstrate the requested techniques.

See the general lesson structure.

4. Give feedback on the demonstrations.

See the general lesson structure.

C Conclusion 1. Assess the final results of the learning process.

Briefly discuss any frequently occurring problems you observed during B Instruction.

Have the students do **exercise 1 Creating a Chart (1)** on page 152. They may use *Appendix B "How Do I Do That Again?"* of the book.

Have the students do **exercise 2 Pie Chart** on page 153. They may use *Appendix B "How Do I Do That Again?"* of the book.

Have the students do **exercise 3 Creating a Chart (2)** on page 154. They may use *Appendix B "How Do I Do That Again?"* of the book.

Have the students do **exercise 4 Clustering a Chart in a Different Way** on page 154. They may use *Appendix B "How Do I Do That Again?"* of the book.

2. Recap and demonstrate uses for what's been learned.

Go back to the objectives and read them out loud again. Encourage the students to practice the information and skills they've learned at home.

Extra material Background information and Tips on page 156-158.

Fifth Meeting

A Introduction 1. Make sure the students are ready for class to begin.

See the general lesson structure.

2. Explain this lesson's objectives.

Present the following information first, writing the words in bold somewhere in large letters so that everyone can see them well (on a blackboard, for example).

You can use the tables in *Excel* in lots of different ways. They are very useful if you want to keep track of things, such as **lists with various data**. For example, merchandise lists, personnel lists, or membership information. The data regarding a DVD, stamp or other type of collection can also be recorded in *Excel*.

When you collect and organize your data in this way you are actually using *Excel* as a **database**. A worksheet allows you to start working right away **arranging the data** in your list. You will not be performing calculations with this data, but the simple yet powerful **sorting function** in *Excel* will let you make excellent use of this program.

Moreover, you will have many options for **selecting specific data** from these long lists (in *Excel* this is called **filtering**). With this function you can very quickly find the persons or articles you are looking for in the list you have selected, no matter if the list is sorted or unsorted.

**In this lesson, you'll learn how to do the following:
(also write this somewhere that's easy for the students to read)**

- create an address list;
- sort the data in ascending and descending order;
- sort data on multiple levels;
- filter data from a list;
- use custom filters;
- create mailings in *Word* with data from *Excel*;
- link an *Excel* list to a *Word* document;
- insert data from *Excel* into a *Word* document.

3. Review any necessary background knowledge.

Briefly review the material from the previous class, for instance:

- select parts of the worksheet in order to create a chart;
- insert titles above charts;
- distinguish column, line, and pie charts;
- change the type of chart in retrospect;

- enter names for chart sheets;
- create a single chart with different areas on the worksheet;
- change the colors of a chart;
- use color effects;
- apply 3D effects;
- change the legend;
- add titles;
- change the scaling;
- change the measurement units.

B Instruction 1. Present the subject matter.

Pages 159-177.

2. Help the students learn the material.

See the general lesson structure.

3. Have the students demonstrate the requested techniques.

See the general lesson structure.

4. Give feedback on the demonstrations.

See the general lesson structure.

C Conclusion 1. Assess the final results of the learning process.

Briefly discuss any frequently occurring problems you observed during B Instruction.

Have the students do **exercise 1 Sorting** on page 178. They may use *Appendix B “How Do I Do That Again?”* of the book.

Have the students do **exercise 2 Filtering** on page 179. They may use *Appendix B “How Do I Do That Again?”* of the book.

Have the students do **exercise 3 Top 10** on page 179. They may use *Appendix B “How Do I Do That Again?”* of the book.

2. Recap and demonstrate uses for what’s been learned.

Go back to the objectives and read them out loud again. Encourage the students to practice the information and skills they’ve learned at home.

Extra material Background information and Tips on pages 180-182.

Sixth Meeting

A Introduction 1. Make sure the students are ready for class to begin.

See the general lesson structure.

2. Explain this lesson's objectives.

Present the following information first, writing the words in bold somewhere in large letters so that everyone can see them well (on a blackboard, for example).

Preparing an **estimate** and **allocating budgets** for a new year, a new product, or a new department is always a somewhat uncertain activity. *Excel* can help you gain some insight into the uncertain factors that play a role when preparing an estimate.

Based on figures from past experiences and expectations, you can try to **appraise the figures** for your new estimate in the best possible way. This is also the case when you need to allocate budgets for company departments or activities.

In this lesson, for demonstration purposes, you will be creating a simple estimate for a club. You do not need to create your own estimates in exactly the same way. Each estimate will be different, depending on the goal or the organization for which it is created. By working through this lesson you will learn some useful calculations that may come in handy when you need to prepare your own estimates and budgets.

**In this lesson, you'll learn how to do the following:
(also write this somewhere that's easy for the students to read)**

- create a budget model;
- compare annual figures;
- delete cells;
- calculate increases in percentage;
- use absolute cell references;
- set the notation for thousands;
- adapt forecasts;
- use the budget as a policy model;
- use *Conditional formatting*;
- copy formatting characteristics;
- present the budget in the form of a chart;
- use the *Goal seek* function.

3. Review any necessary background knowledge.

Briefly review the material from the previous class, for instance:

- create an address list;
- sort the data in ascending and descending order;
- sort data on multiple levels;
- filter data from a list;
- use custom filters;
- create mailings in *Word* with data from *Excel*;
- link an *Excel* list to a *Word* document;
- insert data from *Excel* into a *Word* document.

B Instruction 1. Present the subject matter.

Pages 183-203.

2. Help the students learn the material.

See the general lesson structure.

3. Have the students demonstrate the requested techniques.

See the general lesson structure.

4. Give feedback on the demonstrations.

See the general lesson structure.

C Conclusion 1. Assess the final results of the learning process.

Briefly discuss any frequently occurring problems you observed during B Instruction.

Have the students do **exercise 1 Absolute Cells** on page 204. They may use *Appendix B “How Do I Do That Again?”* of the book.

Have the students do **exercise 2 Goal Seek** on page 205. They may use *Appendix B “How Do I Do That Again?”* of the book.

2. Recap and demonstrate uses for what’s been learned.

Go back to the objectives and read them out loud again. Encourage the students to practice the information and skills they’ve learned at home.

Extra material Background information and Tips on pages 207 and 210.

Seventh Meeting

A Introduction 1. Make sure the students are ready for class to begin.

See the general lesson structure.

2. Explain this lesson's objectives.

Present the following information first, writing the words in bold somewhere in large letters so that everyone can see them well (on a blackboard, for example).

Microsoft Excel has a large number of functions that can help you enter standard data a lot faster. A **search function** will **save you time and energy**, especially **with data that has a relationship**. For example: if you type a product number in an invoice, *Excel* can search for the description and the price of this product.

In this lesson you will learn how to use the search function. You will look for personnel data by entering a name. This not only saves time, but it can also prevent you from making typing errors. A search function may seem a bit complicated at first, but after you use it a few of times you will start to understand the terminology.

Furthermore, in this lesson you will learn how to **calculate with hours and minutes**. Since time notations are not displayed with decimals, calculating with time units is a bit different from standard calculations.

**In this lesson, you'll learn how to do the following:
(also write this somewhere that's easy for the students to read)**

- enter hours and minutes;
- calculate with time;
- name cells;
- create formulas with cell names;
- search for data within a table.

3. Review any necessary background knowledge.

Briefly review the material from the previous class, for instance:

- create a budget model;
- compare annual figures;
- delete cells;
- calculate increases in percentage;
- use absolute cell references;
- set the notation for thousands;
- adapt forecasts;
- use the budget as a policy model;

- use *Conditional formatting*;
- copy formatting characteristics;
- present the budget in the form of a chart;
- use the *Goal seek* function.

B Instruction 1. Present the subject matter.

Pages 211-226.

2. Help the students learn the material.

See the general lesson structure.

3. Have the students demonstrate the requested techniques.

See the general lesson structure.

4. Give feedback on the demonstrations.

See the general lesson structure.

C Conclusion 1. Assess the final results of the learning process.

Briefly discuss any frequently occurring problems you observed during B Instruction.

Have the students do **exercise 1 Calculations with Time (1)** on page 227. They may use *Appendix B “How Do I Do That Again?”* of the book.

Have the students do **exercise 2 Calculations with Time (2)** on page 228. They may use *Appendix B “How Do I Do That Again?”* of the book.

2. Recap and demonstrate uses for what’s been learned.

Go back to the objectives and read them out loud again. Encourage the students to practice the information and skills they’ve learned at home.

Extra material Background information on page 230-231.

Eighth Meeting

A Introduction 1. Make sure the students are ready for class to begin.

See the general lesson structure.

2. Explain this lesson's objectives.

Present the following information first, writing the words in bold somewhere in large letters so that everyone can see them well (on a blackboard, for example).

Do you know how much your **car or truck costs you per mile**? Whether it's for personal affairs or business purposes, it will not hurt to let *Microsoft Excel* help you calculate these expense every now and then. This lesson will show you how to build a worksheet to do just that. You will be taking into account **variable expenses**, such as gasoline and maintenance, as well as **fixed expenses**, such as depreciation, insurance and taxes.

As you build the worksheet you will be exploring other features in *Excel* that allow you to **create dropdown lists** for items that you use repeatedly. This saves time as you will not need to type them over and over again. You will also learn how to build complex formulas by **nesting** them. *Excel* can perform logical tests and calculate values based on different criteria.

It is also important that you strive to keep your **workbooks** neatly **organized**. You can do this for example, by moving some calculations to separate worksheets. Results produced by these calculations will not be affected as calculations can be done across multiple worksheets.

**In this lesson, you'll learn how to do the following:
(also write this somewhere that's easy for the students to read)**

- type your own data validation list;
- turn a table into a data validation list;
- nest formulas;
- use the *IF* formula;
- set *Conditional formatting*;
- create a new worksheet;
- add up entire columns with *Sum*;
- insert absolute references in formulas.

3. Review any necessary background knowledge.

Briefly review the material from the previous class, for instance:

- enter hours and minutes;
- calculate with time;
- name cells;
- create formulas with cell names;
- search for data within a table.

B Instruction 1. Present the subject matter.

Pages 233-255.

2. Help the students learn the material.

See the general lesson structure.

3. Have the students demonstrate the requested techniques.

See the general lesson structure.

4. Give feedback on the demonstrations.

See the general lesson structure.

C Conclusion 1. Assess the final results of the learning process.

Briefly discuss any frequently occurring problems you observed during B Instruction.

Have the students do **exercise** on page 256. They may use *Appendix B “How Do I Do That Again?”* of the book.

2. Recap and demonstrate uses for what’s been learned.

Go back to the objectives and read them out loud again. Encourage the students to practice the information and skills they’ve learned at home.

Extra material Background information on page 258-260.

Ninth Meeting

A Introduction 1. Make sure the students are ready for class to begin.

See the general lesson structure.

2. Explain this lesson's objectives.

Present the following information first, writing the words in bold somewhere in large letters so that everyone can see them well (on a blackboard, for example).

Spreadsheets are often used for entering large amounts of data. Once entered, the data can be sorted, compared, analyzed and summarized to discover trends or patterns or to gain insight into a financial situation. An example of this way of using *Excel* is a household recordkeeping book where you record all your expenses, but it could just as well be the financial administration of a club or a local business.

First, you enter the data from receipts, pay slips or bank statements. You can do this in random order or in chronological order. After that, you can **sort, group and analyze the data**. You will know exactly where the money has gone and perhaps discover ways of planning for the future.

In this lesson you will learn two methods of organizing randomly entered data in order to obtain useful information. You can **create a data summary** or use the data to **create charts and reports to represent your data graphically**.

**In this lesson, you'll learn how to do the following:
(also write this somewhere that's easy for the students to read)**

- create a summary with subtotals;
- create pivot tables;
- recalculate pivot tables;
- create a chart from a pivot table;
- set a report format for pivot table.

3. Review any necessary background knowledge.

Briefly review the material from the previous class, for instance:

- type your own data validation list;
- turn a table into a data validation list;
- nest formulas;
- use the *IF* formula;
- set *Conditional formatting*;
- create a new worksheet;

- add up entire columns with *Sum*;
- insert absolute references in formulas.

B Instruction 1. Present the subject matter.

Pages 261-273.

2. Help the students learn the material.

See the general lesson structure.

3. Have the students demonstrate the requested techniques.

See the general lesson structure.

4. Give feedback on the demonstrations.

See the general lesson structure.

C Conclusion 1. Assess the final results of the learning process.

Briefly discuss any frequently occurring problems you observed during B Instruction.

Have the students do **exercise** on page 274. They may use *Appendix B "How Do I Do That Again?"* of the book.

2. Recap and demonstrate uses for what's been learned.

Go back to the objectives and read them out loud again. Encourage the students to practice the information and skills they've learned at home.

Extra material Background information on page 277-278.

Tenth Meeting

A Introduction 1. Make sure the students are ready for class to begin.

See the general lesson structure.

2. Explain this lesson's objectives.

Present the following information first, writing the words in bold somewhere in large letters so that everyone can see them well (on a blackboard, for example).

In the previous lesson you have created a summary of expenses. The next step is to create a more complete **accounting book** in which you can keep a record of all your **revenues and expenses**. In this lesson you will be creating a **tabular accounting book** with a separate column for each type of revenue or expense. This will provide direct insight into your revenues and expenses under those headings. The advantage of a spreadsheet is that it has a large number of columns, so you can keep track of a large number of items. This type of account booking is often used in clubs and small companies.

Usually an accounting book is created for a certain period of time, for example, a month, a quarter or a year. Although *Excel* would probably let you keep track of a much longer period of time in a single accounting book, it is recommended that you limit the period to smaller segments. Otherwise it is harder to keep a clear picture of your data.

You can recap all your income and expenses over a longer period of time using the **consolidating function**. Consolidating means **combining various worksheets that have the same formatting into a larger total overview**. More information about consolidating can be found in the *Background Information* of the chapter of the book.

**In this lesson, you'll learn how to do the following:
(also write this somewhere that's easy for the students to read)**

- set up and edit a tabular accounting book;
- apply *Conditional formatting* with formulas;
- create a recapitulation of the expenses;
- create a pivot table with multiple merge ranges;
- merge different periods with a pivot table.

3. Review any necessary background knowledge.

Briefly review the material from the previous class, for instance:

- create a summary with subtotals;
- create pivot tables;
- recalculate pivot tables;
- create a chart from a pivot table;
- set a report format for pivot table.

B Instruction 1. Present the subject matter.

Pages 279-294.

2. Help the students learn the material.

See the general lesson structure.

3. Have the students demonstrate the requested techniques.

See the general lesson structure.

4. Give feedback on the demonstrations.

See the general lesson structure.

C Conclusion 1. Assess the final results of the learning process.

Briefly discuss any frequently occurring problems you observed during B Instruction.

Have the students do **exercise** on page 295. They may use *Appendix B "How Do I Do That Again?"* of the book.

2. Recap and demonstrate uses for what's been learned.

Go back to the objectives and read them out loud again. Encourage the students to practice the information and skills they've learned at home.

Extra material Background information on page 297-298.

Eleventh Meeting

A Introduction 1. Make sure the students are ready for class to begin.

See the general lesson structure.

2. Explain this lesson's objectives.

Present the following information first, writing the words in bold somewhere in large letters so that everyone can see them well (on a blackboard, for example).

Microsoft Excel has dozens of functions that can help you solve complex problems. Up till now, you have used just a few of these functions. In this lesson you will learn how to work with a few more functions. You may not need to use these functions on a daily basis, but it is useful to know how they work. Once you know this, you can begin to use these other functions.

Did you know that you can use *Excel* to **draw lots**, for a lottery or a match? For this purpose, the list used needs to be unsorted. In this lesson you will learn how to put sorted data back into a list with random order.

Also, you will learn how to use the **COUNT** function to count all the cells containing numbers within a selected area (or just the opposite: the blank cells). This function is very suitable for **creating work schedules**.

Do you need to perform a number of tasks on a regular basis? Then you can create a **macro** for these tasks. A macro is very handy for complicated tasks, or when they need to be done by less experienced users. By using a key combination you can automatically perform the tasks that go with a certain command.

**In this lesson, you'll learn how to do the following:
(also write this somewhere that's easy for the students to read)**

- use the *RAND* function;
- use this function to draw lots;
- count cells with *COUNT*;
- use a multiple sorting command;
- create a macro;
- run macros.

3. Review any necessary background knowledge.

Briefly review the material from the previous class, for instance:

- set up and edit a tabular accounting book;
- apply *Conditional formatting* with formulas;
- create a recapitulation of the expenses;
- create a pivot table with multiple merge ranges;
- merge different periods with a pivot table.

B Instruction 1. Present the subject matter.

Pages 299-318.

2. Help the students learn the material.

See the general lesson structure.

3. Have the students demonstrate the requested techniques.

See the general lesson structure.

4. Give feedback on the demonstrations.

See the general lesson structure.

C Conclusion 1. Assess the final results of the learning process.

Briefly discuss any frequently occurring problems you observed during B Instruction.

Have the students do **exercise** on page 319. They may use *Appendix B “How Do I Do That Again?”* of the book.

2. Recap and demonstrate uses for what’s been learned.

Go back to the objectives and read them out loud again. Encourage the students to practice the information and skills they’ve learned at home.

Extra material Background information on page 321-322.

6. Other Course Material

Each Visual Steps book is also optimized for classroom use.

If you would like to be informed about the Visual Steps books, please sign up for the Visual Steps newsletter. Our newsletter will inform you about forthcoming books, additional chapter supplements, tips and tricks, special offers and more. Your details will not be used for any purpose other than to send you our newsletter and each newsletter contains a one-click link, allowing you to unsubscribe at any time.

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