

Welcome to Excel Fundamentals for Data Analysis

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Spreadsheet software remains one of the most ubiquitous pieces of software used in workplaces across the world. Learning to confidently operate this software will add a highly valuable asset to your employability portfolio. In the United States alone, millions of job advertisements requiring Excel skills are posted every day.

Research by Burning Glass Technologies and Capital One[↗] shows that digital skills lead to higher income and better employment opportunities. At a time when digital skills jobs are growing much faster than non-digital jobs, completing this course will position you ahead of others, so keep reading.

Excel is a powerful program that has an extraordinarily broad range of features and capabilities. In the first course of our ***Excel Skills for Data Analysis and Visualization Specialization***[↗] you will learn the **Fundamentals** of data analysis with Microsoft Excel. You will build a strong foundation to develop more advanced skills in later courses — and, importantly, have some fun along the way. To make the content easy to relate to and to personalize the learning experience, we are going to follow Zara's journey through the course. Who is Zara? Well, she is no-one and everyone. You will find that Zara's trials and tribulations sound familiar, and together with Zara, you will develop your Excel skills along the way.

Online learning has a lot of advantages: you can decide when and where you will study and do so at your own pace. However, it can also be a challenging experience as you are on your own and not surrounded by your peers in the classroom. There is no teacher holding you accountable for 'showing up' and for getting your homework done on time. So, don't skip our first discussion prompt where we ask you to write down your goals for this course and how you are planning to achieve them. These are two proven strategies to increase your chance of successfully completing the course.

You are here to learn the essential skills you need to use the spreadsheet software Excel efficiently and productively in business environments. And we are here to help you achieve your goals. We have brought together a great teaching team that will be with you every step of the way. Our presenters and Excel experts Prashan and Nicky will guide you through each week. Work through each new challenge with them, and in no time you will surprise yourself with how far you have come. We know you can't wait, so get right into it.

We are so excited that you have decided to join this course with learners from around the globe. We wish you the best of luck and a fantastic learning experience.

Associate Professor Yvonne Breyer

(Director, Learning and Teaching, Macquarie Business School, Macquarie University, Sydney, Australia)

Prerequisites

In order to complete this course successfully, you will need to have some prior knowledge of Excel. At least a general understanding of basic cell referencing, formulas and functions. If you need a refresher you might like to do our ***Excel Skills for Business: Essentials***[↗] course. The best way to learn Excel is to use Excel. In order to work alongside our teaching staff and to complete the assessments in this course, you will need to have access to a computer and to the software Excel (at least version 2007 but preferably 2016 or 2019 or the latest Office 365 version).

How the course is structured

Scenario

Each week begins with the **Scenario** section. In the **Introduction** video, Prashan and Nicky will present you with a challenge that Zara faces. In Week 1, Zara discovers that she has some messy data that needs to be cleaned up before she can work with it — and she hasn't got much time to do it. Sounds familiar? Like we said before, Zara is no-one and everyone! They then take a closer look at Zara's challenge for the week and how Excel can help. Sit down with these two experts to gain deeper insight into the week's topic. Watching the **Introduction** is a powerful way of preparing you for the mechanics you will learn along with Nicky and Prashan in the Practice Videos.



Practice Videos, Quizzes, and Challenges

To be successful and to really learn the essential techniques and concepts of Excel, it is critical that you use Excel as much as possible. Prashan won't let you forget it: **Practice makes Permanent!** Each **Practice Video** comes with an Excel workbook that you download before you watch the video so you can work alongside Prashan and Nicky.

File

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Format as Table

Comma 2

Currency 2

Normal 2

Normal 37

Normal 38

Normal 43

Normal

Bad

Insert

Delete

Format

Cells


B2

In the Practice section, you will find a short **Practice Quiz** after each video that will help you check your progress. The pass threshold for these formative quizzes is 80% — ideally, you work through them until you hit 100%. There are no marks for these quizzes — they are designed to encourage you to revise and expand the Excel knowledge you will be learning that week.

Now you are ready for the weekly **Practice Challenge** that we have set up for you. Don't skip the challenges — these are critically important as they will give you the opportunity to not only apply your new skills but to also transfer them into different contexts. Both the quizzes and challenges may require you to experiment in Excel to find the answer! Don't avoid this — quite the opposite — use Excel whenever possible to come up with the answer! Don't avoid making mistakes — we welcome mistakes in this course. That's why there is a focus on practicing and on challenging yourself.

Toolbox

In this section, you will find a **Quick Reference Guide** for the week containing **Keyboard Shortcuts**, **Excel Terminology**, as well as other bonus content. The resources in here are not exhaustive but they are key to helping build those solid layers of skills. They supplement what you have learned that week and provide some extra bits and pieces that are not covered in the videos. Make sure to study these resources together with the **Practice Videos**, **Quizzes**, and **Challenges** in preparation for the week's **Final Assessment**. You can keep these Guides with you when you are working with Excel. Below is a screenshot of a Quick Reference Guide:



WEEK 1 — TEXT FUNCTIONS

The focus this week was on using Excel functions to manipulate and clean text data. We looked at a lot of different functions. This handy quick reference guide includes all functions we looked at, useful keyboard shortcuts and some other functions worth investigating.

TEXT FUNCTIONS AND OPERATORS	
CONCATENATE (text1, text2, ...)	Joins two or more text strings into one string
& e.g. =A1&A2&A3	Joins two or more text strings into one string
CONCAT (text1, [text2],...)	Combines the text from multiple ranges and/or strings
TEXTJOIN (delimiter, ignore_empty, text1, [text2], ...)	Combines text from multiple ranges and/or strings, and includes the option to specify a delimiter
LEFT (text, num_chars)	Returns a specified number of characters from the left of a text string.
RIGHT (text, num_chars)	Returns a specified number of characters from the right of a text string.
MID (text, start_num, num_chars)	Returns a specified number of characters from the middle of a text string.
FIND (find_text, within_text, [start_num], [NotFound])	Returns the starting position of one text string within another text string. (Is case sensitive)
LEN (text)	Returns the number of characters in a text string
UPPER (text), LOWER (text), PROPER (text)	Change case to uppercase, lowercase and proper case
CLEAN (text)	Removes the first 32 nonprinting characters in the 7-bit ASCII code
TRIM (text)	Removes all spaces from text except for single spaces between words
SUBSTITUTE (text, old_text, new_text, [instance_num])	Substitutes new_text for old_text in a text string (Is case sensitive)

FORMULA TIPS

- Start with =
- Function name always followed by bracket
- Close all brackets
- Comma separate arguments
- Text goes in "quotes"
- Nest multiple functions

=UPPER(CONCAT("Hi", B2))

SHORTCUTS


	Windows	Mac	Action
Ctrl+C	⌘+C	⌘+C	Copy
Ctrl+V	⌘+V	⌘+V	Paste
Ctrl+S	⌘+S	⌘+S	Save
Ctrl+Z	⌘+Z	⌘+Z	Undo
Ctrl+Y	⌘+Y	⌘+Y	Redo
Ctrl+N	⌘+N	⌘+N	New
Ctrl+O	⌘+O	⌘+O	Open

BONUS CONTENT

SEARCH - returns the location of one text string inside another. Unlike FIND, SEARCH allows wildcards, and is not case-sensitive. Syntax: =SEARCH (find_text, within_text, [start_num])

REPLACE - replaces part of a text string, based on the number of characters you specify, with a different text string. Syntax: =REPLACE(old_text, start_num, num_chars, new_text)

You may also want to investigate: **CODE**, **UNICODE**, **CHAR** and **UNICHAR**



Text to Columns

You can take the text in one or more cells, and split it into multiple cells using the Convert Text to Columns Wizard

Course 1 Quick Reference Guide

Assessment and learning tips

The best way to enhance your Excel skills is to get lots and lots of hands-on practice. In our course, you will be able to practice Excel in a number of different ways.

- Work alongside our instructors:** Download the workbooks for each of the Practice Videos and work alongside our presenter as they solve each week's challenge.
- Work through the Practice Quizzes:** Do them straight after each of the videos to reinforce what you have just learned. Try and get all the questions correct. You can take the quizzes as often as you like.
- Take on the weekly Practice Challenge:** After watching the videos and practicing the new topic, you will be able to transfer and apply your new skills with confidence in the weekly Practice Challenge. Give it a go and jump right in.
- Use Excel — as often as you can.** Have you considered tracking your daily expenses/exercise? Are you a big sports fan — track your favorite team's statistics. Perhaps you are helping with administrative duties for your local school or sports club — Excel is your go-to solution. Once you discover the endless strengths and options available with Excel, you will find yourself using it on a daily basis. That's when you will quickly become a super-user of Excel.

Finally, once a week, you have the opportunity to put your skills to the test. The **Weekly Assignments** in this course will each count 15% towards your final result. At the end of the five weeks, there is one more **Final Assignment** that counts 25% towards your result.

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