MICROSOFT® EXCEL FUNDAMENTALS + DATA ANALYTICS CERTIFICATE

Microsoft® Excel: Introduction to formulas

Program description:

This course is for Microsoft Windows Excel 2013 and newer versions, including 365. This course will be an overview of:

- Navigating worksheets, workbooks, entering and copying simple formulas.
- Understanding the difference between absolute and relative addressing.
- Understand Excel's order in performing mathematical operations.
- Set up complex dynamic spreadsheets where a variable changes over time.

Learning objectives:

After completing this course, the learner should be able to:

- Learn how to navigate cells and worksheets
- Learn how to copy formulas
- Learn about Order of Operations
- Set up dynamic spreadsheet models
- Learn how to enter simple formulas
- Learn about logical formulas
- Master absolute and relative addressing

Instructional delivery methods/ course format:	On-Demand
Credit(s):	2
Field of study:	Computer Software & Applications
Prerequisites:	None
Knowledge level:	Basic
Advance preparation:	None

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Microsoft® Excel: Filtering, sorting and duplicates

Program description:

This course is for Microsoft Windows Excel 2013 and newer versions, including 365. This course will be an overview of:

• How to use filtering capabilities to find a subset of spreadsheet data meeting one or more criteria.

• How How to use sorting capabilities to sort a spreadsheet's rows or columns based on a single or multiple criteria.

• Remove duplicate rows from a spreadsheet.

Learning objectives:

After completing this course, the learner should be able to:

• Master basic, number and Top 10 filters.

• Learn how to use text, date, and color filters.

• Learn how to sort based on single or multiple criteria involving numbers and/or text.

• Learn how to sort based on color and/or dates.

• Learn how to sort across, perform case sensitive sorts or use Custom Lists in sorting.

• Learn how to remove duplicate rows based on one or multiple columns.

Instructional delivery methods/ course format:	On-Demand
Credit(s):	1.5
Field of study:	Computer Software & Applications
Prerequisites:	None
Knowledge level:	Basic
Advance preparation:	None

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Microsoft® Excel: Basic charts

Program description:

This course is for Microsoft Windows Excel 2013 and newer versions, including 365. This course will be an overview of:

- How to create the most used Microsoft Excel charts.
- How to interpret what a chart tells us about the chart's source data.

Learning objectives:

After completing this course, the learner should be able to:

- Learn how to create column, bar, and combo charts.
- Learn how to create a secondary axis.
- Learn how to handle hidden and missing data.
- Learn how to create pie charts.
- Summarize time series data with line charts and stacked area charts.
- Creating labels from cells.
- Display relationships with scatter, bubble, and radar charts.
- Add and change chart elements, switching rows and columns and deleting points from a chart.

Instructional delivery methods/ course format:	On-Demand
Credit(s):	1.5
Field of study:	Computer Software & Applications
Prerequisites:	None
Knowledge level:	Basic
Advance preparation:	None

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Microsoft® Excel: Range names and the auditing tool

Program description:

This course is for Microsoft Windows Excel 2013 and newer versions, including 365. This course will be an overview of:

- Learn how to create range names
- Learn how to use range names in formulas
- Learn how to use Excel's Auditing Tool to understand a workbook's structure

Learning objectives:

After completing this course, the learner should be able to:

- Learn how to use the Name Box and Create from Selection to create range names.
- Learn how to use range names and Implicit Intersection in formulas.
- Learn how to refer to an entire row or column in formulas.
- Learn how to use formulas to create range names.
- Understand the difference between workbook and worksheet level names.
- Learn how to use Microsoft Excel's Auditing Tool to understand a workbook's structure.

Instructional delivery methods/ course format:	On-Demand
Credit(s):	1.5
Field of study:	Computer Software & Applications
Prerequisites:	None
Knowledge level:	Basic
Advance preparation:	• Built for Microsoft Excel 2013 or newer for Windows • Knowledge of formulas

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Microsoft® Excel: VLOOKUP, HLOOKUP, CHOOSE, MATCH, and INDEX functions

Program description:

This course is for Microsoft Windows Excel 2013 and newer versions, including 365. This course will be an overview of:

- Mastering the use of the VLOOKUP, HLOOKUP, CHOOSE, MATCH, and INDEX functions.

Learning objectives:

After completing this course, the learner should be able to:

- Learn how to use the VLOOKUP, HLOOKUP, and CHOOSE functions.
- Learn how to use the MATCH and INDEX functions and combine them.

Instructional delivery methods/ course format:	On-Demand
Credit(s):	2
Field of study:	Computer Software & Applications
Prerequisites:	None
Knowledge level:	Basic
Advance preparation:	None

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Microsoft® Excel: Tables

Program description:

This course is for Microsoft Windows Excel 2013 and newer versions, including 365. This course will be an overview of:

- How Microsoft Excel Tables can be used to make formulas and/or charts update automatically when you add new data to your spreadsheet.

Learning objectives:

After completing this course, the learner should be able to:

- Learn how to use Microsoft Excel tables to make your formulas automatically update when you add new data.
- Learn how to use tables to make your charts automatically update when you add new data.
- Learn how to use table filters and/or slicers to perform complex calculations or create chart based on a subset of your spreadsheet data.

Instructional delivery methods/ course format:	On-Demand
Credit(s):	1
Field of study:	Computer Software & Applications
Prerequisites:	None
Knowledge level:	Basic
Advance preparation:	• Built for Microsoft Excel 2013 or newer for Windows • Knowledge of formulas, filtering, sorting, basic chart, range names, VLOOKUP, HLOOKUP, CHOOSE, MATCH and INDEX

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Microsoft® Excel: IF, IFS, IFERROR, SWITCH, and IS functions

Program description:

This course is for Microsoft Windows Excel 2013 and newer versions, including 365. This course will be an overview of:

- Learn how Excel's various IF functions can be used to supercharge your spreadsheets. Formulas involving the IF function are among the most important formulas in Excel. IF statements allow you to enter values in a cell based on logical conditions. For example, you can use an IF formula to compute a salesperson's commission based on his sales.

Learning objectives:

After completing this course, the learner should be able to:

- Learn how to harness the power of the IF and IFS functions.
- Learn to use the IFERROR function to ensure your colleagues don't see ugly errors.
- Learn how to use ISERROR, ISERR, ISNA, ISNUMBER, ISTEXT.

Instructional delivery methods/ course format:	On-Demand
Credit(s):	2.5
Field of study:	Computer Software & Applications
Prerequisites:	None
Knowledge level:	Basic
Advance preparation:	• Built for Microsoft Excel 2013 or newer for Windows • Knowledge of formulas, range names, VLOOKUP, HLOOKUP, CHOOSE, MATCH and INDEX

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Microsoft® Excel: Text functions

Program description:

This course is for Microsoft Windows Excel 2013 and newer versions, including 365. This course will be an overview of:

- Learn how Excel's various text functions can be used to manipulate spreadsheet data

Learning objectives:

After completing this course, the learner should be able to:

- CONCATENATE and FIND functions to manipulate data.
- Use Text to Columns and Flash Fill to manipulate data.
- Learn how to use special text formats and UNICODE characters.
- Master the tricky TEXT, CLEAN and SUBSTITUTE functions.

Instructional delivery methods/ course format:	On-Demand
Credit(s):	2
Field of study:	Computer Software & Applications
Prerequisites:	None
Knowledge level:	Basic
Advance preparation:	• Built for Microsoft Excel 2013 or newer for Windows • Knowledge of formulas, range names, tables and IF statements

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Microsoft® Excel: Date and time functions and circular references

Program description:

This course is for Microsoft Windows Excel 2013 and newer versions, including 365. This course will be an overview of:

- In this course you will master Excel's many date and time functions that can be used to manipulate dates and times. You will also learn about many tricky aspects of handling times in Excel.

- We will show you how to properly use circular references to solve business problems, and eliminate annoying circular reference messages.

Learning objectives:

After completing this course, the learner should be able to:

- Learn to use Microsoft Excel's many date functions.

- Learn to use Microsoft Excel's time functions and do correct calculations involving times.

- Learn how to recognize and resolve circular references.

Instructional delivery methods/ course format:	On-Demand
Credit(s):	1.5
Field of study:	Computer Software & Applications
Prerequisites:	None
Knowledge level:	Basic
Advance preparation:	• Built for Microsoft Excel 2013 or newer for Windows • Knowledge of formulas, range names, VLOOKUP, HLOOKUP, CHOOSE, INDEX, MATCH and IF functions

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Microsoft® Excel: Conditional counts, sums, and averages

Program description:

This course is for Microsoft Windows Excel 2013 and newer versions, including 365. This course will be an overview of:

- Learn Excel's many methods for computing conditional counts, sums and averages

Learning objectives:

After completing this course, the learner should be able to:

- Learn to use the COUNTIF, COUNTIFS, SUMIF, SUMIFS, AVERAGEIF, AVERAGEIFS, COUNT, COUNTA and COUNTBLANK functions.
- Learn how to use Database Statistical Functions and the Advanced Filter.
- Learn how to use Array formulas and the SUMPRODUCT function to perform statistical calculations on rows defined by several criteria.

Instructional delivery methods/ course format:	On-Demand
Credit(s):	2
Field of study:	Computer Software & Applications
Prerequisites:	None
Knowledge level:	Basic
Advance preparation:	• Built for Microsoft Excel 2013 or newer for Windows • Knowledge of formulas, sorting, filtering, range names, tables, VLOOKUP, HLOOKUP, CHOOSE, INDEX, MATCH and IF functions

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Microsoft® Excel: Conditional formatting

Program description:

This course is for Microsoft Windows Excel 2013 and newer versions, including 365. This course will be an overview of:

- Learn Excel's methods for conditional formatting cells based on the contents of the cell

Learning objectives:

After completing this course, the learner should be able to:

- Learn how to format cells using Top Bottom Rules, Highlight Cells, Data Bars, Color Scales, and Icon sets.
- Formatting cells based on Excel formulas.

Instructional delivery methods/ course format:	On-Demand
Credit(s):	2
Field of study:	Computer Software & Applications
Prerequisites:	None
Knowledge level:	Basic
Advance preparation:	• Built for Microsoft Excel 2013 or newer for Windows • Knowledge of formulas, filtering, sorting, removing duplicates, range names, tables, conditional counts, VLOOKUP, HLOOKUP, CHOOSE, INDEX, MATCH and IF functions

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Microsoft® Excel: Pivot tables

Program description:

This course is for Microsoft Windows Excel 2013 and newer versions, including 365. This course will be an overview of:

- Learn to use Excel's Pivot Table feature to summarize and slice and dice your data

Learning objectives:

After completing this course, the learner should be able to:

- Learn to use the Field List to set up a Pivot Table.
- Learn to use Summarize Values By to change a summary statistic and Show Values as to change the display of Pivot Table calculations.
- Learn to use Value and Text Filters.
- Learn to summarize Pivot Table calculations with a Pivot Chart.

Instructional delivery methods/ course format:	On-Demand
Credit(s):	3
Field of study:	Computer Software & Applications
Prerequisites:	None
Knowledge level:	Basic
Advance preparation:	• Built for Microsoft Excel 2013 or newer for Windows • Knowledge of formulas, filtering, sorting, removing duplicates, basic charts and tables

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Microsoft® Excel: Data Analytics Advanced charts and control

Program description:

This course was created for Microsoft Excel 2013 and newer versions including 365. The course has updates to highlight differences for Mac users and is Mac friendly.

It will be an overview of:

- Learn to create Excel's more advanced charts and utilize Excel controls to enhance worksheets.

Learning objectives:

After completing this course, the learner should be able to:

- Learn to use Microsoft Excel charts to track actual performance against targeted performance.
- Learn to use sparkline charts.
- Learn to use spinners, scroll bars, checkboxes, dynamic labels and list boxes to control charts.
- Create dashboards and dynamic chart labels
- Master Excel 2016's new charts.

Instructional delivery methods/ course format:	On-Demand
Credit(s):	2.5
Field of study:	Computer Software & Applications
Prerequisites:	Ability to create and use charts within Microsoft® Excel charts and working knowledge of basic concepts related to data analytics
Knowledge level:	Advanced
Advance preparation:	Microsoft Excel: Basic Charts course within the certificate program

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Microsoft® Excel: Data Analytics Descriptive statistics

Program description:

This course will be an overview of:

- Learn to create Excel's data analysis capabilities to describe and draw insights from data.

Learning objectives:

After completing this course, the learner should be able to:

- Learn to graphically summarize data with Histograms and Box Plots.
- Learn descriptive statistics used to summarize data on central location, spread and skewness.
- Understand how to spot outliers.
- Learn to use PERCENTILE.EXC, PERCENTRANK.EXC, RANK, LARGE and SMALL functions.
- Learn how to take a random sample from a data set.
- Understand random variables. Learn how to compute mean, variance and standard deviation.
- Learn how to compute probabilities and percentiles for the normal random variable.
- Understand how to use Z-scores to measure how atypical a data point is.
- Learn how correlation summarizes linear association between two variables.
- Learn how to use simple linear regression to estimate the relationship between two variables.

Instructional delivery methods/ course format:	On-Demand
Credit(s):	3
Field of study:	Computer Software & Applications
Prerequisites:	Understanding of basic statistics
Knowledge level:	Intermediate
Advance preparation:	Microsoft Excel: Data Analytics Advanced Charts and Control would be taken prior to this course.

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