

Excel for Data Analysis

Course Intro

Master the power of **Excel for data analysis**! This beginner-friendly course is designed for **students and professionals** who want to learn how to **organize, analyze, and visualize data effectively** using Microsoft Excel.

By the end of the course, students will be able to **handle datasets, create reports, use formulas, and build insightful visualizations** for better decision-making.

About the Course

The **Excel for Data Analysis** course is perfect for learners with **little to no prior experience** in Excel. Over **three months**, students will learn:

- ✓ **Excel basics** – navigating the interface, formatting, and basic functions.
- ✓ **Data handling** – sorting, filtering, and cleaning datasets.
- ✓ **Formulas & Functions** – mastering SUM, VLOOKUP, INDEX/MATCH, and more.
- ✓ **Pivot Tables & Charts** – summarizing and visualizing data efficiently.
- ✓ **Data Analysis Tools** – conditional formatting, what-if analysis, and data validation.
- ✓ **Automation with Macros** – an introduction to VBA for automating tasks.

At the end of the course, students will complete a **real-world data analysis project** and receive a **certificate of completion**!

Course Requirements

To participate in this course, students will need:

- ✓ A **laptop** with Microsoft Excel installed (Excel 2016 or later recommended).
 - ✓ **Internet access** for virtual lessons.
 - ✓ **No prior experience required** – just a willingness to learn!
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Course Outline

1. Getting Started with Excel

- ◆ Understanding the Excel interface & workbook structure.
- ◆ Basic data entry, formatting, and shortcuts.
- ◆ Introduction to functions & formulas.

2. Managing & Cleaning Data

- ◆ Sorting & filtering datasets for easy analysis.
- ◆ Removing duplicates and handling missing values.
- ◆ Data validation & error handling.

3. Essential Formulas & Functions

- ◆ SUM, AVERAGE, COUNT, IF statements.
- ◆ LOOKUP functions – VLOOKUP, HLOOKUP, INDEX/MATCH.
- ◆ Working with text functions (LEFT, RIGHT, MID, CONCATENATE).

4. Pivot Tables & Charts

- ◆ Creating & formatting Pivot Tables.
- ◆ Using Pivot Charts for dynamic reporting.
- ◆ Interactive slicers for filtering data.

5. Data Visualization & Conditional Formatting

- ◆ Using charts: Bar, Line, Pie, and Combo charts.
- ◆ Conditional formatting for highlighting insights.
- ◆ Sparkline charts for quick trend visualization.

6. Data Analysis & Forecasting

- ◆ What-If Analysis, Goal Seek & Scenario Manager.
- ◆ Basic forecasting techniques in Excel.
- ◆ Data modeling principles.

7. Introduction to Macros & Automation

- ◆ Basics of Excel Macros & recording actions.
- ◆ Introduction to VBA for automating repetitive tasks.
- ◆ Writing simple scripts for efficiency.

8. Final Project & Presentation

- ◆ Completing a real-world **data analysis case study**.
- ◆ Presenting insights using charts & dashboards.
- ◆ Q&A session and certification.

Course Benefits

- ✓ Master Excel for **data handling & decision-making**.
- ✓ Learn **essential formulas, PivotTables, and charts**.
- ✓ Automate tasks & improve efficiency with **Macros & VBA**.
- ✓ Gain hands-on experience with **real-world datasets**.
- ✓ Earn a **certificate upon completion!**