COMPUTER SOFTWARE TRAINING .com
VIRTUAL-CLASS WEBINARS | ON-DEMAND VIDEOS | ON-SITE CLASSES

Microsoft 365 Excel

WEBINAR+VIDEO+ONSITE | ALL VERSIONS

Foundations of Data Analysis

COMPUTER SOFTWARE TRAINING .com
VIRTUAL-CLASS WEBINARS | ON-DEMAND VIDEOS | ON-SITE CLASSES

Understanding Excel data analysis means more than formulas and charts—it's about converting messy, incomplete, or imported data into structured, reliable insights for smarter decisions. In this live, instructor-led session, you'll define data analysis in business terms and apply Excel's tools to clean, validate, reshape, and interpret your data. You'll learn to distinguish between structured lists and informal layouts, identify headers and data zones, and recognize problem-prone formats like merged cells or subtotals. Sort layers (by rows or columns), filters, AutoFilter, Slicers, and Flash Fill allow for precision isolation of data. Use TRIM, CLEAN, SUBSTITUTE, VALUE, and other tools to reformat text, normalize values, and remove hidden inconsistencies. You'll remove duplicates, extract unique values, and maintain list integrity with data validation and dropdown controls. Use formatting-based highlights like data bars, icons, and rules to visually spotlight patterns and outliers. Subtotal tools, grouping features, and collapsible outlines help you summarize by category and create multi-level rollups. Convert raw ranges into structured Excel Tables with slicers and summary toggles for dynamic filtering and total rows. Gain full control over matrix-style data using left-to-right sorting, horizontal layouts, and field-priority sequencing. Apply formulas to extract unique values, build dropdowns, and fill in missing context with lookups like VLOOKUP. You'll also explore scenario planning, goal seeking, and Solver-based modeling to stress-test outcomes. External data prep is covered through CSV, TXT, PDF, and database import, along with cleaning, field mapping, and value standardization. Finally, you'll prepare data for tools like PivotTables with normalized layouts, consistent formatting, and optimized structure for fast, future-proof reuse. Through real-world workflows and clarity-driven strategies, you'll learn to organize and fully understand your data—whether analyzing in place or prepping for what's next. This class builds confidence, accelerates your workflow, and sharpens decision-making with structured, trustworthy data.

Understanding Structured Lists vs. Freeform Data

- Define structured lists vs. informal worksheets
- Identify headers, data zones, and tabular structure
- Recognize problem areas like merged cells, blanks, and subtotals

Sorting, Filtering & Data Isolation

- Perform single- and multi-level sorting (rows and columns)
- Use AutoFilter and Slicers for visual filtering
- Filter by value, text, number range, icon, or conditional logic

Cleaning, Splitting & Formatting Raw Data

- Split and reformat text using Flash Fill and Text to Columns
- Apply cleanup functions like TRIM, CLEAN, SUBSTITUTE, and VALUE
- Normalize formats and remove hidden characters or inconsistencies

De-Duplication, Validation & List Integrity

- Remove duplicates and extract unique values
- Use Advanced Filter for distinct records
- Set up Data Validation with dropdowns and input controls

Visual Highlights with Conditional Formatting

- Apply rules for highlighting values, ranges, and errors
- Use color bands, data bars, and icon sets
- Build advanced formula-based rules to highlight rows dynamically

Subtotals, Grouping & Outline Controls

- Summarize data by category using the Subtotal tool
- Create collapsible outlines with multi-level grouping
- Build summaries using COUNT, AVERAGE, MAX, and custom formulas

Table Design & Interactive Filtering

- Convert raw ranges into Excel Tables with structured references
- Add slicers for point-and-click filtering and dashboard behavior
- Activate total row options for built-in summaries

Column Sorting & Matrix Control

- Sort columns left-to-right to rearrange matrix data
- Organize columns by sequence, month, or field priority
- Design horizontal layouts for performance and comparison

Structuring with Formulas & Lookups

- Use formulas to extract unique values and build dynamic lists
- Create dropdowns and support tables for controlled inputs
- Use VLOOKUP to fill missing context such as names or descriptions

Scenario Planning & What-If Models

- Use Scenario Manager to test business cases
- Apply Goal Seek for reverse calculations
- Solve constraints with Solver for optimal outcomes

External Data Integration & Prep

- Import data from CSV, TXT, PDF, and databases
- Clean and format imported data for smooth analysis
- Standardize external inputs for accuracy and structure

Analysis Prep for Pivot Tables & Beyond

- Design datasets ready for PivotTables and dashboards
- Ensure clean fields, normalized values, and consistent formatting
- Structure your data to enable fast, error-free future analysis