

Advanced Excel

Total Hrs: 16

Advanced Formulas & Functions

1. Array Formulas and Dynamic Arrays

- Introduction to Array Formulas
- Using Dynamic Arrays in Excel 365/2019: SORT, FILTER, UNIQUE, SEQUENCE
- Practical exercises with dynamic arrays for data manipulation

2. Advanced Logical and Lookup Functions

- Complex IF conditions with IF, IFS, AND, OR functions
- Lookup and Reference Functions: XLOOKUP, INDEX, MATCH, INDIRECT
- Nested functions and multi-level lookups

3. Error Handling Functions

- Error management with IFERROR and IFNA
- Practical scenarios for data cleaning and formula troubleshooting

4. Text Functions

- Advanced Text Functions: TEXTJOIN, TEXT, CONCAT, LEFT, RIGHT, MID
- Custom formats, parsing text, and data cleaning
- Case studies using text functions with other functions for effective data organization

Data Analysis Tools & Techniques

1. Data Validation and Conditional Formatting

- Setting up dropdown lists, custom data validation rules
- Advanced conditional formatting using formulas
- Applications for quality control, alerting, and guiding data entry

2. Advanced Pivot Tables

- Customizing Pivot Tables: grouping, slicers, and layouts
- Calculated Fields and Calculated Items for flexible analysis
- Practical scenarios with interactive data analysis and summarization

3. Data Analysis Functions

- Statistical Functions: AVERAGEIF, AVERAGEIFS, SUMIF, SUMIFS, COUNTIF, COUNTIFS
- Additional functions: RANK, PERCENTRANK, QUARTILE, FREQUENCY
- Using Data Analysis ToolPak for quick data insights
- Real-world cases like customer segmentation and financial summaries

Data Cleaning & Transformation

1. Working with Large Datasets

- Efficient sorting, filtering, and managing outliers
- Removing duplicates and optimizing performance
- Tips for handling large datasets and improving file performance

2. Advanced Data Cleaning

- Functions for data standardization: TRIM, CLEAN, SUBSTITUTE, TEXT, VALUE
- Combining multiple functions to clean and transform raw data
- Exercises focused on preparing data for analysis and presentation

3. Advanced Sorting, Filtering, and Subtotals

- Custom sorting, filtering, and criteria-based filtering
- Subtotals and nested subtotals for categorized data
- Practical exercises for using filtering and subtotals in analysis and reporting

Advanced Charting & Dashboard Design

1. Advanced Charting Techniques

- Combination charts, waterfall charts, sparklines, and bullet charts
- Creating dynamic charts with named ranges and tables
- Customization for effective data presentation

2. Pivot Charts and Slicers

- Building and formatting Pivot Charts from Pivot Tables
- Using Slicers and Timelines for interactive visual reports
- Exercises on creating dynamic data presentations

3. Dashboard Design and Data Visualization

- Principles of dashboard design and visualization
- Using form controls and slicers for interactivity
- Building a mini-dashboard with charts, KPIs, and interactive components

Summary and Wrap-Up: Q&A and Real-World Scenarios

- Review of key topics and Q&A session
- Applying skills to real-world scenarios: sales, finance, HR, and operational analytics