# Excel for Data Analysis – 11 Hours

### Module 1: Excel Basics & Data Handling (2.5 Hours)

**Goal**: Build a strong foundation in navigating Excel and managing structured data.

- Excel interface: Ribbon, tabs, workbooks, worksheets
- Cell referencing: Relative, Absolute, Mixed
- Data entry, formatting (text, numbers, dates)
- Sorting (single/multi-level) and Filtering (text, number, date)
- Basic formulas: SUM, AVERAGE, MIN, MAX, COUNT, COUNTA

### **Module 2: Logical & Lookup Functions (2.5 Hours)**

**Goal**: Perform dynamic and condition-based analysis using logic and lookup tools.

- Logical functions: IF, AND, OR, NOT, Nested IF
- Error handling: IFERROR, ISERROR, ISBLANK
- Lookup functions: VLOOKUP, HLOOKUP, INDEX, MATCH, INDEX-MATCH
- Use cases: Conditional bonus rules, data mapping, default value handling

### Module 3: Pivot Tables & Data Visualization (2 Hours)

**Goal**: Summarize, analyze, and visualize data using Pivot tools.

- Create and format Pivot Tables
- Grouping, custom calculations, percentage analysis
- Pivot Charts and appropriate chart types
- Add interactivity with Slicers and Timelines

#### Module 4: Data Cleaning & Advanced Filtering (2 Hours)

**Goal**: Clean messy datasets and prepare them for analysis.

Remove duplicates, trim spaces

- Split and merge columns (Text to Columns, CONCATENATE, TEXTJOIN)
- Advanced filters and custom sort rules
- Conditional formatting for spotting errors or trends

## **Module 5: Dashboard Creation & Presentation (2 Hours)**

Goal: Design and present interactive dashboards with best practices.

- Combine Pivot Tables, Charts, and Slicers
- Use dynamic ranges and named ranges
- Optional: Add Form Controls (drop-downs, scroll bars)
- Layout and design best practices for clean, client-ready dashboards
- Exporting dashboards as PDF/print-friendly views