

CORPORATE PUBLIC TRAINING PROGRAMME

ADVANCED EXCEL
WITH AI

Smarter Formulas, Faster Decisions, Better Reports

2-DAY INSTRUCTOR-LED PROGRAMME | HANDS-ON LAB

9:00 AM – 5:00 PM • Excel 365 + Microsoft Copilot + Gemini + ChatGPT + Claude.ai

 Dynamic Arrays & Modern Lookups	 What-If Analysis & Scenario Modelling
 Power Pivot & Data Models	 AI Co-Pilots: Microsoft Copilot & Claude.ai
 Prompt Engineering for Spreadsheets	 Capstone: AI-Assisted Management Report

1 TRAINING DESCRIPTION

This two-day Advanced Excel with AI programme is designed for professionals who are already confident in Excel and want to pair advanced spreadsheet techniques with AI assistants to work faster and decide with more confidence. Day 1 sharpens core advanced-Excel skills — dynamic array functions, advanced lookups, what-if analysis, and Power Pivot. Day 2 layers in AI tools, primarily Microsoft Copilot in Excel and Claude.ai, to generate formulas from plain language, analyse data, debug complex worksheets, and build reports — turning hours of manual work into minutes of guided, AI-assisted output.

2 TRAINING OBJECTIVES

- ✓ Deepen mastery of advanced Excel formulas, dynamic arrays, and data modelling tools.
- ✓ Introduce AI-assisted workflows using Microsoft Copilot in Excel and Claude.ai.
- ✓ Build practical prompt-writing skills for generating accurate formulas, summaries, and insights.
- ✓ Show how AI tools accelerate formula creation, debugging, and analysis without sacrificing accuracy.
- ✓ Equip participants to blend traditional Excel skills with AI for faster, smarter business decisions.

3 LEARNING OUTCOMES

Upon completion of this programme, participants will be able to:

- ✓ Apply advanced lookup functions (INDEX-MATCH, XLOOKUP, XMATCH) and dynamic array functions (FILTER, SORT, UNIQUE, SEQUENCE).
- ✓ Use Goal Seek, Data Tables, and Scenario Manager to model business decisions.
- ✓ Build a basic Power Pivot Data Model with relationships across multiple tables.
- ✓ Use Microsoft Copilot in Excel to generate formulas, summarise data, and suggest charts using natural language.
- ✓ Use Claude.ai to explain, debug, and generate formulas and VBA macros, and to analyse uploaded datasets for insights.
- ✓ Write effective prompts for AI tools using the Role-Task-Content (R-T-C) framework.
- ✓ Critically review and validate AI-generated formulas and insights before applying them to real reports.
- ✓ Produce an AI-assisted management report combining advanced Excel techniques with Copilot and Claude.ai.

4 TARGET AUDIENCE

Executives, analysts, finance and accounts professionals, and experienced Excel users who are already comfortable with intermediate-level formulas, PivotTables, and formatting, and who want to advance both their technical Excel skills and their fluency with AI tools such as Microsoft Copilot and Claude.ai for daily reporting and decision-making.

5 TRAINING METHODOLOGY

- ✓ Trainer-led demonstration followed by hands-on practice on individual laptops.
- ✓ Live use of Microsoft Copilot in Excel and Claude.ai on real business datasets.
- ✓ Step-by-step lab workbook and AI prompt library provided to each participant.
- ✓ Q&A and troubleshooting woven throughout every session.

6 DAY 1 — ADVANCED EXCEL CORE SKILLS

Focus: formulas, dynamic arrays, decision-modelling tools, and Power Pivot — the technical foundation Day 2's AI layer builds on.

TIME	MODULE	LEARNING POINTS	AI TOOLS IN PLAY
9:00 – 10:30	Advanced Lookup & Reference Functions	- INDEX-MATCH for flexible two-way lookups - XLOOKUP for modern, simplified lookups - XMATCH and multi-condition lookups - Troubleshooting #N/A and reference errors	 Copilot in Excel: Ask Copilot to draft an XLOOKUP from a plain-English description, then compare it to the manual version.  Claude.ai: Paste a broken lookup formula and have Claude diagnose the #N/A / #REF! error and explain the fix.
10:30 – 10:45	 Morning Break		
10:45 – 12:30	Dynamic Arrays & Modern Functions	- FILTER for conditional extraction - SORT and SORTBY - UNIQUE for de-duplication - SEQUENCE and spill ranges	 Claude.ai: Describe the output you want in plain English; ask Claude to generate a nested FILTER + SORT + UNIQUE formula.  Copilot in Excel: Use “add a column that shows...” prompts to auto-build a spill-range summary table.
12:30 – 13:30	 Lunch Break		
13:30 – 15:00	What-If Analysis & Decision Tools	- Goal Seek for single-variable targets - Data Tables for one- and two-variable scenarios - Scenario Manager for comparing outcomes - Sensitivity analysis for budgeting/forecasting	 Claude.ai: Upload a scenario summary and ask Claude to write a plain-language narrative comparing best/worst case outcomes.  Copilot in Excel: Ask Copilot to summarise which scenario drives the biggest swing in the result cell.
15:00 – 15:15	 Afternoon Break		
15:15 – 17:00	Power Pivot & Data Model Basics	- Importing tables into the Data Model - Creating relationships between tables - Building basic DAX measures - Cross-table PivotTables beyond one sheet	 Claude.ai: Describe the measure you need in plain English (e.g. “YoY growth %”) and ask Claude to write the DAX formula and explain it.  Copilot in Excel: Use natural language to request a PivotTable built directly from the Data Model relationships.

7 DAY 2 — AI-POWERED EXCEL WITH COPILOT & CLAUDE.AI

Focus: applying Microsoft Copilot and Claude.ai to formula writing, debugging, data analysis, and report-building, capped by a hands-on capstone project.

TIME	MODULE	LEARNING POINTS	AI TOOLS IN PLAY
9:00 – 10:15	AI in Spreadsheets: The New Landscape	- How AI is changing everyday spreadsheet work - Overview of Microsoft Copilot in Excel - Overview of Claude.ai and Claude for Excel - Choosing the right AI tool for the task at hand	 Copilot vs. Claude.ai: Live side-by-side comparison: in-cell/ribbon assistance (Copilot) vs. deep analysis, debugging and file uploads (Claude.ai).
10:15 – 10:30	 Morning Break		
10:30 – 12:00	Microsoft Copilot in Excel	- Natural-language formula generation - Data summarisation and trend highlights - Instant chart and PivotTable suggestions - Working inside the live worksheet	 Microsoft Copilot: The primary tool this session — native to Excel 365, works directly on the open worksheet.  Claude for Excel (add-in): Where available, use as a second opinion for more complex, multi-step formula requests.
12:00 – 12:30	Smarter Formulas with Claude.ai	- Explaining and debugging complex formulas - Generating XLOOKUP / array / nested-IF formulas from plain English - Drafting VBA macros for repetitive tasks	 Claude.ai (Sonnet): Best for step-by-step formula explanations, catching logic errors, and generating well-commented VBA macros.
12:30 – 13:30	 Lunch Break		
13:30 – 14:45	AI-Assisted Data Analysis	- Uploading datasets to Claude.ai for review - Pattern spotting and anomaly detection - Comparing AI insights with manual PivotTable analysis	 Claude.ai: Upload a CSV/XLSX directly and ask for outliers, trends and a 3-bullet executive summary.  Copilot in Excel: Cross-check Claude's findings with Copilot's in-sheet "Analyze Data" suggestions.
14:45 – 15:00	 Afternoon Break		
15:00 – 16:00	Prompt Writing for Spreadsheet Tasks	- The Role-Task-Content (R-T-C) prompt framework - Writing prompts for formulas, summaries, dashboard narratives - Reviewing and validating AI output before use	 Claude.ai + Copilot: Practice the same R-T-C prompt in both tools and compare accuracy, speed, and the need for edits.

TIME	MODULE	LEARNING POINTS	AI TOOLS IN PLAY
16:00 – 17:00	Capstone: AI-Assisted Report & Dashboard	- Combine advanced formulas + Power Pivot with AI prompts - Build a polished management report using Copilot and Claude.ai - Group walkthrough and Q&A	 Copilot + Claude.ai: Full workflow: Copilot drafts the in-sheet formulas/charts; Claude.ai reviews the workbook and drafts the written executive summary.

8 AI TOOL QUICK-REFERENCE

A one-glance guide to which AI tool to reach for during each type of task in this programme.

TASK	BEST-FIT AI TOOL	WHY
In-cell formula generation	Microsoft Copilot in Excel	Native, works live inside the open worksheet.
Debugging a broken/complex formula	Claude.ai, Gemini	Explains logic step-by-step and pinpoints the error.
Writing/explaining VBA macros	Claude.ai	Generates commented, editable macro code.
Summarising a dataset / spotting trends	Copilot in Excel + Claude.ai	Cross-check Copilot's in-sheet summary against Claude's uploaded-file analysis.
Drafting a written executive summary	Claude.ai, ChatGPT 5.6	Turns numbers and charts into clear, business-ready narrative.
Suggesting charts / PivotTables	Microsoft Copilot in Excel	One-click, in-context visual suggestions.