

LIVE COURSE · HANDS-ON WORKSHOP

Excel Mastery.

From Advanced Formulas to AI-Powered Workflows

A hands-on deep dive into supercharging your Excel workflows.

DURATION

2 Hours

One single session

COHORTS

4 / Year

Dates announced quarterly

FEE

₹499

Launch offer

FORMAT

Live Online

◆ COURSE OVERVIEW

Excel Mastery is a focused, hands-on workshop that takes you from competent spreadsheet user to confident analyst. It is built on a simple premise: the Excel features you already half-know are exactly the ones AI tools build upon, and understanding how they work under the hood makes you dramatically more effective at prompting AI to help you.

The single two-hour session moves in two halves. First, we rebuild your foundations and push into the modern formula layer - multi-condition aggregation, XLOOKUP, LAMBDA, dynamic arrays and PIVOTBY. Then we bring AI into the workflow, using Claude to assess data quality, clean dirty datasets, resolve mismatched keys and reshape data that traditional joins cannot handle.

You will leave with working formulas, reusable prompt templates and a repeatable cleaning framework you can apply to your very next dataset.

Faculty · Tathagata Dasgupta

◆ COURSE MODULE · SINGLE SESSION

• Excel Mastery · From Advanced Formulas to AI-Powered Workflows

Duration · 2 hours · one single live session

LECTURE · A · EXCEL POWER FUNDAMENTALS (40 MIN)

- ▶ Excel essentials refresher — the foundations every AI tool builds upon
- ▶ Multi-condition aggregation with SUMIFS, COUNTIFS and AVERAGEIFS
- ▶ XLOOKUP and XMATCH — modern, flexible replacements for VLOOKUP and MATCH
- ▶ LAMBDA — building custom, reusable functions inside Excel with no VBA
- ▶ Pivot Tables and Pivot Charts — preparing data, and knowing their real limits
- ▶ The hidden pivot cache — why manual refresh and file bloat matter in live reporting
- ▶ Dynamic arrays — UNIQUE, SORT, FILTER, SEQUENCE, VSTACK and the spill operator
- ▶ PIVOTBY — replicating and surpassing a Pivot Table in a single formula

LECTURE · B · AI-POWERED DATA WORK (40 MIN)

- ▶ AI-generated formulas — prompt engineering for spreadsheets, and why prompt quality decides formula quality
- ▶ Google Sheets Enhanced Smart Fill — live in-line AI suggestions and pattern prediction
- ▶ Data Validation, Flash Fill and Consolidate — controlling entry and combining sheets
- ▶ The dirty data dilemma — duplicates, missing values, inconsistent formats and noise
- ▶ AI-assisted quality assessment with Claude — the upload, scan and review workflow
- ▶ What Claude detects that rules cannot — outliers, fuzzy duplicates and cross-field logical errors
- ▶ Core validation strategies — range checks, format validation, referential integrity and cross-field logic
- ▶ Merging with imperfect keys — where fuzzy matching stops and semantic entity resolution begins

◆ GROUP WORK & PRACTICALS

HANDS - ON EXERCISES (40 MIN)

- ▶ Build a Pivot Table and Pivot Chart from a raw district-level dataset
- ▶ Write and run a data-quality assessment prompt on a messy beneficiary dataset
- ▶ Set up dropdown lists, range checks and cross-field validation rules on a live sheet
- ▶ Draft your own reusable cleaning template - profile, document, automate, iterate

◆ LEARNING OUTCOMES

- ▶ Write confident multi-condition formulas using SUMIFS, XLOOKUP, XMATCH and LAMBDA
- ▶ Judge when a Pivot Table is the right tool, and when to migrate to a formula-driven summary
- ▶ Replace refresh-dependent reports with self-updating dynamic array and PIVOTBY pipelines
- ▶ Prompt AI tools to generate, explain and debug Excel formulas reliably
- ▶ Detect duplicates, outliers and logical errors across large datasets with Claude
- ▶ Merge datasets with imperfect or semantically different keys through AI-assisted resolution
- ▶ Build documented, reusable cleaning templates that you can apply to every new dataset

◆ TOOLS & TECHNOLOGIES

◆ PIVOT TABLE	◆ Dynamic Arrays	◆ PIVOTBY
◆ Claude	◆ Google Sheets	◆ Smart Fill

◆ WHO SHOULD ATTEND

BUILT FOR

**Data Analysts · MIS & MEL Professionals · Researchers · Evaluators ·
Programme Managers · Finance & Operations Teams · New Job Aspirants ·
Students**

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