

# Excel for Construction: Build Smarter Workflows

## STREAMLINING DATA, CALCULATIONS, AND REPORTING FOR SMARTER PROJECT MANAGEMENT

(2 Sessions × 3.5 Hours Each)

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### Course Overview

This course builds on foundational Excel skills to help construction professionals create more advanced and efficient spreadsheets. Participants will learn to manage large datasets, apply complex formulas, and automate repetitive tasks — all within the context of estimating, scheduling, and project reporting.

### Who Should Attend

Designed for estimators, project managers, site administrators, and coordinators who already understand Excel basics and want to improve their efficiency and accuracy in managing project data.

### Course Format

Duration: 2x3.5-Hour sessions on back-to-back days

Delivery Method: Instructor Led Online via Zoom

Materials Provided:

- Course workbook (PDF)
- Construction-based sample spreadsheets (estimating, scheduling, and cost tracking)
- Formula reference guide and function examples

### Pre-Requisites

Completion of Microsoft Excel Basics for the Commercial Construction Industry or equivalent experience (entering data, using formulas, and basic formatting).

### Learning Outcomes

1. Advanced formulas and functions for cost, productivity, and project data analysis.
2. Summarize and interpret information using PivotTables and charts.
3. Create professional, dynamic spreadsheets with color-coded insights.
4. Reference and link data across sheets for consistency.

5. Automate repetitive construction workflows for improved efficiency.  
Microsoft Excel Intermediate for the Commercial Construction Industry

## Session 1 - Advanced Formulas & Data Management (3.5 Hours)

### Module 1 - Working with Large Datasets

- Freeze panes, split view, and efficient navigation
- Finding and removing duplicates
- Sorting and filtering multiple levels (e.g., trade, supplier, cost code)

### Module 2 - Advanced Formulas & Functions

- Using IF, AND, OR statements for decision-based logic
- Applying VLOOKUP and XLOOKUP for cross-referencing construction data
- Practical examples: pulling rates from a materials table, summarizing cost codes

### Module 3 - Named Ranges & Absolute References

- Simplifying formulas with named ranges
- Locking key cells for consistency

### Module 4 - Date & Time Functions

- Calculating durations and completion percentages
- Construction-specific use cases (days between start and end dates, productivity tracking)

### Module 5 - Workshop Activity #1

- Build a subcontractor tracking sheet using lookups and conditional formulas

## Session 2 - Data Visualization & Automation Tools (3.5 Hours)

### Module 6 - Conditional Formatting for Construction Insights

- Highlighting schedule delays, over-budget costs, or safety non-compliance
- Color-coding progress and status fields

### Module 7 - Tables & Structured References

- Converting data ranges into tables for dynamic updates
- Using total rows, filters, and table formulas

### Module 8 - PivotTables & Summaries

- Creating PivotTables to summarize project data
- Grouping by trade, location, or date
- Filtering and refreshing reports

## **Module 9 - Charts & Dashboards**

- Combining tables and charts for job progress visuals
- Building a project cost dashboard for management reporting

## **Module 10 - Introduction to Macros & Repetitive Task Automation**

- Understanding the concept of macros
- Recording simple macros for repetitive tasks (e.g., formatting reports)

## **Module 11 - Workshop Activity #2**

- Create a mini project performance dashboard summarizing cost, progress, and time data