Advanced Excel: Power Query, Power Pivot & Macro Mastery

21 – 25 December 2026
Cape Town (South Africa)



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Why This Course

Excel remains one of the most powerful business tools—but many professionals only scratch the surface of what it can truly do. When working with large datasets, multiple data sources, and repetitive reporting tasks, traditional Excel techniques quickly become inefficient and time-consuming.

To stay competitive and productive, professionals need advanced capabilities that allow them to clean, model, analyze, and automate data with precision. Power Query, Power Pivot, and VBA Macros transform Excel from a simple spreadsheet tool into a powerful data analysis and automation platform.

This comprehensive 1-week program is designed to help participants unlock that potential. Through hands-on practice and real-world applications, attendees will learn how to build dynamic data models, automate complex processes, and create intelligent reporting solutions that drive faster, smarter decisions.

What You'll Learn and Practice

By joining this program, you will:

- Master Power Query for efficient data extraction, transformation, and loading ETL
- Build robust data models using Power Pivot and DAX formulas
- Create and customize VBA macros to automate repetitive tasks
- Apply best practices in advanced Excel data analysis and visualization
- Integrate Power Query, Power Pivot, and Macros into seamless Excel solutions
- Design automated dashboards and dynamic reporting systems

The Program Flow

Day 1: Introduction to Power Query

- Understanding Power Query and its role in data transformation
- Connecting to multiple data sources Excel, databases, web, CSV, etc.
- Performing essential data cleaning and transformation tasks
- Merging and appending data from various sources



Day 2: Advanced Power Query Techniques

- Performing complex transformations and creating custom functions
- Managing data errors and improving data quality
- Building parameterized and dynamic queries
- Optimizing query performance and maintaining scalable solutions

Day 3: Power Pivot Fundamentals

- Introduction to data modeling concepts
- Creating relationships between multiple tables
- Writing basic DAX calculations and measures
- Building PivotTables and PivotCharts from data models

Day 4: Advanced Power Pivot and DAX

- Writing advanced DAX formulas and calculated measures
- Time intelligence functions for financial and trend analysis
- Creating KPIs and performance metrics
- Optimizing data models for speed and efficiency

Day 5: Excel Macros and Integration

- Introduction to VBA and macro recording
- Writing, editing, and debugging VBA code
- Automating workflows and report generation
- Integrating Power Query and Power Pivot with macros to build comprehensive Excel solutions

Individual Impact

Participants will leave the program with:

- The ability to significantly reduce data preparation time using Power Query
- Skills to build dynamic reports that refresh automatically with new data
- Confidence in analyzing large datasets efficiently with Power Pivot
- The capability to automate repetitive processes and save substantial time
- A structured framework for building end-to-end Excel data solutions

Work Impact

Organizations will benefit through:



- Faster and more accurate reporting processes
- Improved data consistency and quality
- Enhanced decision-making through advanced analytics
- Reduced manual workload and operational inefficiencies
- Scalable Excel-based solutions without immediate reliance on external tools

Training Methodology

This program emphasizes hands-on learning and practical application through:

- Step-by-step guided exercises using real business datasets
- Interactive workshops focused on model building and automation
- Practical case studies reflecting common reporting challenges
- Templates, reusable scripts, and ready-to-apply frameworks
- Integrated project work combining Power Query, Power Pivot, and VBA

Beyond the Course

Upon completion, participants will be ready to:

- Build automated, scalable Excel reporting systems
- Handle complex and high-volume datasets with confidence
- Replace manual processes with intelligent automation
- Deliver professional, data-driven insights that add measurable value

This program empowers professionals to move beyond basic spreadsheets and transform Excel into a powerful platform for advanced data modeling, automation, and strategic analysis.

