

KOENIG SOLUTIONS • COURSE OUTLINE

Advanced Data Analysis and Presentation Skills Training

Learn to analyse data in Excel and present insights through dashboards and PowerPoint using AI-assisted tools.

3 Days

24 HOURS

12

MODULES

56

TOPICS

2

HANDS-ON ACTIVITIES

COURSE OVERVIEW

This course covers data analysis fundamentals in Excel, including statistics, correlation, regression, what-if analysis, and Solver, along with basic and advanced data visualization using charts and conditional formatting. It then addresses advanced analysis techniques such as Pivot Tables, lookup and array formulas, AI tools and Co-Pilot for data analysis, and the design of interactive dashboards. The final part focuses on Advanced PowerPoint skills for data presentation, covering slide design, infographics, interactivity, multimedia integration, animations, and AI tools such as Co-Pilot and Designer for presentation enhancement.

WHO THIS COURSE IS FOR

Data Analysts

Business Analysts

Excel Users

Presentation Designers

Report Creators

LEARNING OBJECTIVES

- Explain the difference between raw data and analysed insights
- Apply basic statistical measures such as mean and standard deviation
- Interpret correlation and simple linear regression results
- Use What-If Analysis tools such as Goal Seek and Solver
- Create and customise charts including advanced chart types
- Analyse data using Pivot Tables, lookups, and array formulas
- Apply AI tools and Co-Pilot for faster data analysis
- Design interactive dashboards and stakeholder-ready presentations

12 Modules, 56 Topics

DAY 1

Fundamentals of Data Analysis in Excel

8 hours

01

Session 1: Introduction to Data Analysis in Excel

INTRODUCTION TO DATA ANALYSIS

- Difference between raw data and analyzed insights
- Importance of data analysis in business decision-making

GETTING STARTED WITH EXCEL

- Overview of Excel's interface
- Exploring built-in data analysis tools

BASIC STATISTICS FOR DATA ANALYSIS

- Mean, Median, Mode
- Variance and Standard Deviation
- Data distribution concepts

EXCEL FUNCTIONS FOR STATISTICAL ANALYSIS

- AVERAGE, MEDIAN, STDEV, VAR

02

Session 2: Correlation and Regression Analysis

UNDERSTANDING CORRELATION

- Positive, negative, and no correlation
- Practical examples of correlation

REGRESSION ANALYSIS

- Simple linear regression for predictive insights
- Interpreting regression results

03

Session 3: What-If Analysis and Solver

WHAT-IF ANALYSIS TECHNIQUES

- Goal Seek for achieving desired results
- Scenario Manager for comparing multiple scenarios
- Data Tables for one and two-variable analysis

INTRODUCTION TO SOLVER

- Using Solver for solving optimization problems

04

Session 4: Data Visualization Basics

CREATING AND CUSTOMIZING BASIC CHARTS

- Bar Charts, Line Charts, and Pie Charts
- Color coding based on data ranges

ADVANCED CONDITIONAL FORMATTING FOR DATA ANALYSIS

- Using formulas to create dynamic formatting rules
- Conditional formatting for trend analysis
- Visual indicators for KPIs

DAY 2

Advanced Data Analysis and Visualization

8 hours

05

Session 1: Advanced Data Visualization Techniques

EXPLORING ADVANCED CHARTS IN EXCEL

- Waterfall Charts for business changes over time
- Funnel Charts for process visualization
- Treemap and Sunburst Charts for hierarchical data
- Map Charts for geographical data insights
- Scatter and Combo Charts for relationships and comparisons

CUSTOMIZATION TIPS

- Formatting charts for better insights and audience understanding

06

Session 2: Regular and Advanced Analysis Techniques

PERFORMING REGULAR DATA ANALYSIS

- Filtering and sorting data
- Summarizing data with Pivot Tables and Pivot Charts

QUALITATIVE VS. QUANTITATIVE ANALYSIS

- How to identify and differentiate them

ADVANCED ANALYSIS TOOLS IN EXCEL

- Using VLOOKUP, HLOOKUP, and INDEX-MATCH for data extraction
- **Array formulas:** UNIQUE, FILTER, SORT
- Error-handling with IFERROR

07

Session 3: Using AI Tools and Co-Pilot for Data Analysis

INTRODUCTION TO AI IN EXCEL

Overview of AI-powered tools · Benefits of automation in data analysis

EXCEL CO-PILOT FEATURES

Generating insights and recommendations · Automating repetitive tasks in Excel · Using inbuilt Data Analysis tools in excel · Using ChatGPT for data analysis

HANDS-ON PRACTICE

- Applying AI tools for faster analysis and decision-making

08

Session 4: Designing Interactive Dashboards

DASHBOARD CREATION TECHNIQUES

- Adding slicers and timelines for interactivity
- Embedding charts and tables using theme for consistency

FINALIZING DASHBOARDS

- Making them stakeholder-ready

DAY 3

Advanced PowerPoint for Data Presentation

8 hours

09

Session 1: Creating Effective and Attractive Presentations

KEY ELEMENTS OF AN ATTRACTIVE PRESENTATION

Balancing content, visuals, and text

USING SLIDE MASTER

Ensuring consistency in design and formatting

DESIGNING INFOGRAPHICS

Representing data creatively and effectively

10

Session 2: Interactive PowerPoint Features

ADDING INTERACTIVITY

- Creating clickable links and action buttons
- Embedding interactive charts and dashboards from Excel
- Using hyperlinks for seamless navigation

MULTIMEDIA INTEGRATION

- Incorporating videos, images, and audio for engagement

11

Session 3: Infographics and Visual Storytelling

TOPICS

Choosing the Right Infographics · Enhancing Communication

DESIGNING ATTENTION

Creative cover slide designs and layouts

12

Session 4: Advanced Presentation Techniques and Delivery

WORKING WITH ANIMATIONS AND TRANSITIONS

- Using animations to emphasize points
- Choosing appropriate transitions for a professional look

POWERPOINT AI TOOLS

- Utilizing Co-Pilot and Designer for quick enhancements
- Exploring some other AI tool to create an attractive presentation

PRACTICAL EXERCISE

- Creating and delivering a sample presentation

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

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