

Mastering Data Visualization: From Basics to Advanced Techniques

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Amsterdam (Netherlands)

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2022-2023 Academic Year | **Location:** Amsterdam (Netherlands) | **Fees:** 5900 GBP

Why This Course

In today's data-driven environment, the ability to turn complex information into clear, meaningful visuals is essential for better analysis, stronger communication, and faster decision-making. Data alone does not create impact. What matters is how insights are presented, understood, and used by different audiences. Effective data visualization helps professionals reveal patterns, explain trends, reduce complexity, and support action with confidence.

This intensive 5-day course equips participants with the skills to transform complex data into compelling visual narratives. From fundamental principles to advanced techniques, learners will master industry-standard tools and best practices in data visualization. The course combines theoretical knowledge with hands-on exercises, enabling participants to create impactful visualizations that drive informed decision-making.

What You'll Learn and Practice

By joining this program, you will:

- Understand core principles of effective data visualization and visual perception.
- Master key visualization techniques using tools like Tableau, Power BI, and Python libraries.
- Develop skills in creating interactive dashboards and data stories.
- Learn to choose appropriate chart types and design elements for different data sets.
- Gain proficiency in data preparation and cleaning for visualization.
- Acquire best practices for presenting data insights to diverse audiences.

The Program Flow

Day 1: Foundations of Data Visualization

- Introduction to data visualization principles.
- Understanding visual perception and cognitive load.
- Overview of visualization tools and technologies.
- Basic chart types and their applications.
- Data preparation and cleaning techniques.

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A graphic of a chessboard with several chess pieces (king, queen, rook, knight, and pawns) in gold and silver, set against a background of concentric circles.

Day 2: Mastering Tableau

- Tableau interface and data connections.
- Creating basic and advanced chart types.
- Working with filters and parameters.
- Calculated fields and table calculations.
- Building interactive dashboards.

Day 3: Advanced Techniques with Power BI

- Power BI desktop overview and data modeling.
- Creating custom visuals and animations.
- DAX formulas for advanced analytics.
- Power BI service and sharing options.
- Integrating with other Microsoft tools.

Day 4: Data Visualization with Python

- Introduction to Python libraries such as Matplotlib, Seaborn, and Plotly.
- Creating static and interactive plots.
- Customizing visualizations with Python.
- Geospatial visualizations.
- Integrating Python visuals into web applications.

Day 5: Advanced Topics and Best Practices

- Storytelling with data.
- Designing for different devices and platforms.
- Ethics in data visualization.
- Performance optimization techniques.
- Final project: Creating a comprehensive data story.

Individual Impact

- Strengthen your ability to communicate complex data clearly and effectively.
- Enhance your skills in using leading visualization tools and techniques.
- Build stronger capability in creating dashboards, reports, and data-driven stories.
- Gain greater confidence in presenting insights to technical and non-technical audiences.

Work Impact

- Improve decision-making through clearer and more effective data communication.
- Strengthen reporting, dashboarding, and analytical presentation across the organization.
- Support better stakeholder understanding of trends, risks, and opportunities.
- Enhance the organization's ability to turn raw data into actionable business insights.

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Training Methodology

This program integrates visualization principles, tool-based practice, and real-world application to ensure professional relevance and immediate workplace value. Learning methods include:

- Real-world case studies on dashboarding, reporting, and data storytelling.
- Practical exercises in data preparation, chart design, and dashboard creation.
- Interactive workshops using Tableau, Power BI, and Python visualization tools.
- Group discussions on design choices, audience needs, and communication effectiveness.
- Frameworks and tools for applying data visualization best practices across different business contexts.

Beyond the Course

Upon completion, participants will be better equipped to create data visualizations with greater clarity, accuracy, and impact. They will return ready to:

- Transform complex datasets into meaningful visual insights.
- Build stronger dashboards and interactive reports.
- Present data stories more effectively to support decision-making.
- Apply visualization best practices across different tools, audiences, and business needs.

A graphic of a chessboard with several chess pieces (king, queen, rook, knight, and pawns) in gold and silver. The board is checkered and has a subtle grid pattern. The text 'UK Training PARTNER' is overlaid on the right side of the board.

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