



# Microsoft Power BI: Data Analysis Professional

Course ID #: 7000-334-ZZ-Z

Hours: 21

## Course Content

### Course Description:

The creation of data-backed visualizations is a key way data scientists, or any professional, can explore, analyze, and report insights and trends from data. Microsoft® Power BI® software is designed for this purpose. Power BI was built to connect to a wide range of data sources, and it allows users to quickly create visualizations of connected data to gain insights, show trends, and create reports. Power BI's data connection capabilities and visualization features go far beyond those that can be found in spreadsheets, allowing users to create compelling and interactive worksheets, dashboards, and stories that bring data to life and turn data into thoughtful action.

### At Course Completion:

After competing this course, student will be able to:

- Analyze data with self-service BI.
- Connect to data sources.
- Perform advanced data modeling and shaping.
- Visualize data with Power BI.
- Enhance data analysis.
- Model data with calculations.
- Create interactive visualizations.
- Perform advanced analysis.
- Publish and share reports and dashboards.
- Extend access to Power BI.

### Prerequisites:

Excel Levels 1 and 2

### Target Student:

This course is designed for professionals in a variety of job roles who are currently using desktop or web-based data-management tools such as Microsoft Excel or SQL Server reporting services to perform numerical or general data analysis. They are responsible for connecting to cloud-based data sources, then shaping and combining data for the purpose of analysis, and are looking for alternative ways to analyze business data, visualize insights, and share those insights with peers across the enterprise. This includes capturing and reporting on data to peers, executives, and clients.



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## Topics:

### Lesson 1: Analyzing Data with Self-Service BI

- **Topic A:** Data Analysis and Visualization for Business Intelligence
- **Topic B:** Self-Service BI with Microsoft Power BI

### Lesson 2: Connecting to Data Sources

- **Topic A:** Create Data Connections
- **Topic B:** Configure and Manage Data Relationships
- **Topic C:** Save Files in Power BI

### Lesson 3: Performing Data Cleaning, Profiling, and Shaping

- **Topic A:** Clean, Transform, and Load Data with the Query Editor
- **Topic B:** Profile Data with the Query Editor
- **Topic C:** Shape Data with the Query Editor
- **Topic D:** Combine and Manage Data Rows

### Lesson 4: Visualizing Data with Power BI

- **Topic A:** Create Visualizations in Power BI
- **Topic B:** Chart Data in Power BI

### Lesson 5: Enhancing Data Analysis

- **Topic A:** Customize Visuals and Pages
- **Topic B:** Incorporate Tooltips

### Lesson 6: Modeling Data with Calculations

- **Topic A:** Create Calculations with Data Analysis Expressions (DAX)
- **Topic B:** Create Calculated Measures and Conditional Columns

### Lesson 7: Creating Interactive Visualizations

- **Topic A:** Create and Manage Data Hierarchies
- **Topic B:** Filter and Slice Reports

- **Topic C:** Create Dashboards

### Lesson 8: Using Advanced Analysis Techniques

- **Topic A:** Create Calculated Tables, Variables, and Parameters
- **Topic B:** Enhance Visuals with Statistical Analysis
- **Topic C:** Perform Advanced Analysis

### Lesson 9: Enhancing Reports and Dashboards

- **Topic A:** Enhance Reports
- **Topic B:** Enhance Dashboards

### Lesson 10: Publishing and Sharing Reports and Dashboards

- **Topic A:** Publish Reports
- **Topic B:** Create and Manage Workspaces
- **Topic C:** Share Reports and Dashboards

### Lesson 11: Extending Power BI Beyond the Desktop

- **Topic A:** Use Power BI Mobile
- **Topic B:** Extend Access with the Power BI API