COURSE SYLLABUS

# Power BI Course NYC

Learn how to use Power BI, a powerful data visualization tool, to create interactive and aesthetically pleasing charts, graphs, and maps. Learn how to connect to datasets, analyze and structure data, customize visualizations, and publish reports.

> Group classes (NYC) and onsite training are available for this course. For more information, email onsite@graduateschool.edu or visit: https://www.graduateschool.edu/courses/power-bi-course-nyc




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# Course Outline

## Level 1

### Introduction to Power BI

- Why Use Power BI?
- Power BI Desktop
- Power BI Pro vs. Free
- Explanation of ETL process (Extract, Transform, Load)
- Data Types

### Creating a Visualization

- Importing Data
- Choosing different types of data visualizations (column charts, bar charts, pie charts, donut charts, and more)
- Cleaning Up the Appearance: Axis Labels, Display Units, Title, and more
- Adding Data Labels
- Card Visuals

### Publishing & Sharing

- Publishing Reports (to app.powerbi.com)
- Sharing Reports
- Collaborate on Reports with Comments
- Adding a Power BI report to PowerPoint
- Workspaces: What are they, publishing to the appropriate workspace, and creating/managing
- Exporting a PDF

### Links to Data Source Files

- How Power BI Links to Data Files
- Managing Links to Data Source Files

### Extracting & Transforming Data

- Extracting data from various sources: Text/CSV files, Excel worksheets, Multiple Files in a Folder, and more
- Transforming data using the Power Query Editor:
  ETL = Extract, Transform, Load
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### Data Transformations

- Use First Row as Headers
- Remove Empty rows (null data)
- Split Column By Delimiter
- Applied Steps
- Merge Queries
- Append Queries
- Fill Down
- Transpose
- Pivot
- Column profiling for data quality check
- Query Dependencies

### Relationships

- Relationship importance
- Understanding types of relationship
- Creating relationships
- Cross filter relation: Single or Both

### Building/Design a Report

- Adding a Title
- Adding a Logo
- Adding a Background (Solid Color or Photo)

### Measures

- Create Measures
- Using Measures in a Data Visualization

### Calculated Columns

- Using DAX to create a Calculated Column
- Navigating Related Tables using DAX

### Slicers

- What Slicers Are
- Adding & Using a Slicer

## Level 2

### Filters

- Adding Filters
- Adjusting Filter settings

### Intro to DAX: Data Analysis Expressions

- SUM vs SUMX
- CONCATENATEX
- COUNT vs COUNTX

### Quick Measures

- YTD (Year-to-Date)
- Year-over-year change

### Map Visuals

Creating and Customizing a Map Visual

### Drill Down & Drill Through

- How to use Drill Down
- How to use Drill Through
- How Drill Down differs from Drill Through

### Getting Data from Online Spreadsheets

- Getting Data from a Google Sheet
- Getting Data from Excel File Stored in OneDrive

### Refreshing Data

- How Datasets work in the Power BI Service
- Manually Refreshing or Scheduled Refresh

### Reusable Power BI Datasets

- About Reusable Power BI Datasets
- Creating & Using Power BI Datasets

### Dashboards

- Dashboards vs Reports
- Creating a Dashboard