COURSE SYLLABUS

Power BI Bootcamp

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 (Live Online) and onsite training are available for this course. For more information, email onsite@graduateschool.edu or visit: https://www.graduateschool.edu/courses/power-bi-bootcamp



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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
  ELT = Extract, Load, Transform

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