

# **DATA ANALYSIS CLASS CURRICULUM**

## *MICROSOFT EXCEL*

### **Introduction to Data Analysis**

#### **Formulas & Functions (Low to moderate intensity)**

- Day 1 & Day 2:  
Logical Functions, Math Functions, Statistical Functions
- Day 3:  
Array Formulas, Lookup Functions, Text Functions, Date and Time Functions

#### **Visuals & Spreadsheet Skills (Moderate intensity)**

- Day 1:  
Charts Intro, Charts Advanced, Charts Statistics
- Day 2:  
Sparklines, Tables, Formatting
- Day 3:  
Collaboration, Project #1: Build Dashboard, Project #1: Share Projects

#### **Intermediate Analysis (Moderate to high intensity)**

- Day 1:  
PivotTable Intro, PivotTable Advanced
- Day 2:  
PivotCharts, Analysis Add-ins
- Day 3:  
Data Tables, Analysis ToolPak

#### **Power Query (High intensity)**

- Day 1:  
Power Query Intro, Power Query Editor
- Day 2:  
Advanced Transformations
- Day 3:  
Append vs Merge

#### **Power Pivot & DAX (Very high intensity)**

- Day 1:  
Power Pivot Intro, Power Pivot Window
- Day 2:  
DAX Intro, DAX Advanced
- Day 3:  
Project #2 - Salary Analysis

## *POWERBI*

### **Intro & Grand Tour**

- What is Power BI?
- Course Introduction
- Power BI Desktop Overview
- Building a Dashboard
- Power BI Service Overview

#### **Visualizations**

- Column & Bar Charts
- Line & Area Charts
- Common Charts
- Map Charts
- Uncommon Charts
- Tables
- Cards
- Slicers
- Buttons & Bookmarks

#### **Project 1**

- Build Main Dashboard
- Add Job Drill Through
- Share Dashboard

#### **Power Query**

- Power Query Introduction
- Power Query Editor
- Project 2: Data Import
- Advanced Transformations
- Append vs Merge
- M Language Basics

#### **DAX (Data Analysis Expressions)**

- DAX Introduction
- Explicit Measures
- Parameters

#### **Project 2**

- Build Dashboard
- Share Dashboard

### **DATA ANALYSIS CLASS CURRICULUM**

#### **Day 1**

- Welcome
- What is SQL
- Intro to Course
- The Basics
- Comparisons

#### **Day 2**

- Practice Problem 1
- Wildcards
- Alias: AS
- Practice Problem 2
- Operations
- Aggregation

### **Day 3**

- Practice Problem 3
- NULL Values
- JOINS
- Order of Execution
- Practice Problem 5

### **Day 1**

- Setup PostgreSQL
- IDE Install: VS Code
- Data Types
- Manipulate Tables
- Database Load

### **Day 2**

- Date Functions
- Practice Problem 6
- CASE Expression
- SubQueries and CTEs
- Practice Problem 7

### **Day 3**

- UNION Operators
- Practice Problem 8
- About the Project
- Create the Repository
- Query 1 - Top Paying Jobs
- Query 2 - Top Paying Job's Skills
- Query 3 - In-Demand Skills
- Query 4 - Top Paying Skills
- Query 5 - Most Optimal Skills