

Data Analytics Training Curriculum



What will the training cover?

This boot camp will help students learn the cycle of data analytics from start to finish while utilizing SQL, Excel, and Power BI. First, students will learn the basics of extracting data via SQL. Next, students will level up their beginner to intermediate SQL skills to more advanced SQL functions. In this portion of the training, students will be able to go from writing one-page queries to up to 3-page queries.

Once students master how to extract complex data from SQL, they will then streamline the queried data into Excel summary reports via formatting and popular analysis functions, such as SUMIFS, SUBTOTALS, and conditional formatting etc.

Finally, we will round out the training by connecting your SQL database and Excel datasets in Power BI to build dashboards. You will be able to create dynamic dashboards from queried SQL data and Excel data sources and publish your dashboard reports online.

Part 1: Beginner to Intermediate SQL Training Topics

During this portion of the training, you will receive 25 hours of training that will cover core beginner to intermediate SQL training topics that will educate you on how to comfortably extract data from a database.

Database structure

Order by

Where

Aggregate functions

Date functions

Joins (Inner, and Full)

Calculated fields

Text, dates, and numeric data types

Part 2: Advanced SQL Training Topics

During this portion of the training, you will receive 25 hours of training that will cover core advanced SQL training topics that will educate you on how to ramp up your SQL skills to the next level. After this portion of the training, you will be able to write up to 3-page queries.

Having

Subqueries

Unions

Group By

Case statements

Complex and nested join (Inner, full, left, and right joins)

Part 3: Microsoft Excel Reporting Training Topics

During this portion of the training, you will receive 18 hours of training that will teach you how to extract data from SQL to Excel and be able to build and format Excel-ready summary reports.

Prerequisites

Office 365

Creating new worksheets

Hiding worksheets

Deleting worksheets

Locating a cell

Data entry (inputting data into a cell)

Know the difference between columns and rows

Copying and pasting data

Opening a workbook

Know the difference between a workbook vs. worksheet

Saving a workbook

Inserting and deleting rows and columns

Basic Topics

Filtering

Sorting

Formatting

Data Cleansing

Cell referencing

Mathematical operations and calculations

Sum

Average

Min

Max

Counta

Addition

Subtraction

Division

Multiplication

Formula Topics

Xlookups

If statements

Basic If/Then Logic Statements

Error correcting If/Then Logic Statements

Error correcting formulas

Sumifs

Text and dates

Concatenate

Find and replace

Left

Right

Month, Day, Year

Date calculations

Part 4: Power BI Dashboard Training Topics

During this portion of the training, you will receive 24 hours of training that will teach you how to streamline your data flow from SQL and Excel into Power BI. In the training, you will learn how to manipulate your data in Power BI and build interactive dashboards.

Prerequisites

Windows Operating System or Macbook Parallel System

No prior knowledge of Power BI is required. Students will be provided prerequisite self-paced videos prior to the start of the boot camp.

Data Visualization

Data source connections

Data import

Chart selections

Filtering and sorting data

Formatting (Colors, themes, branding, fonts, logos)

Dynamic dashboards

Aggregations

Data types

Web Services upload (upload dashboards to web browsers)

Data Modeling

Data refresh and data source modification

Relationships and cardinality

DAX measures vs. columns

Data transformation via Power Query

Intermediate formulas

Calculate

Filter

Aggregates (SUM, COUNT, AVG, etc.)



DATA TELLS A STORY. BE THE STORYTELLER