

SQL + Python Data Analytics Automation Training Curriculum



What will the training cover?

This boot camp is designed to help students gain a comprehensive understanding of the data analytics cycle through automation using **SQL** and **Python**. The program begins with a strong foundation in SQL, where students will learn how to extract data efficiently from databases. They will start with the basics, writing simple queries to retrieve and manipulate data. As they progress, they will build upon their skills, advancing from beginner to intermediate SQL concepts and ultimately mastering more complex SQL functions. By the end of this phase, students will transition from writing basic one-page queries to constructing multi-page queries of up to three pages, enabling them to extract and analyze large datasets effectively.

Once students develop proficiency in SQL and learn how to work with complex queries, they will move on to the Python module. This phase focuses on using Python to write script that mimics SQL queries to extract the same data using Python as you would with SQL.

Part 1: Intermediate SQL Training Topics

During this portion of the training, you will receive **9 hours of training** that will cover core intermediate 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 2 – 3-page queries.

Unions

Beginner and intermediate joins (Inner and Left Joins)

 **Note: If you do not have prior SQL experience, you will be eligible to enroll in our 10-Hour Beginner SQL Boot Camp at no additional cost prior to the start of the SQL & Python Boot Camp. Registration and enrollment details will be provided in a separate email following your purchase.**

Part 2: Beginner Python Automation Training Topics

During this portion of the training, you will complete **20 hours of training** focused on core, beginner-level Python skills. You'll learn how to apply your existing SQL knowledge within Python, while also gaining hands-on experience automating query writing and Excel reporting through Python scripts.

Introduction to Python for Data Analytics

Setting up Python Environment

Variables

Data Types

Loops

Conditional Operators

Libraries

Data Management with Python

Intro to Pandas

Reading/Writing CSV, Excel, TXT Files

Data Cleaning and Transformation

