

SQL Processing with SAS

Duration: 2.0 days

This Level III course is for SAS software users who want to process data using Structured Query Language (SQL).

Course Description [\[Click to register ONLINE \]](#)

This intermediate course focuses on using SQL as a data query and manipulation tool. You learn to use the SQL procedure as a data retrieval tool within SAS programs. Specifically, you learn how to perform queries on data; retrieve data from multiple tables; create views, indexes, and tables; and update or delete values in existing tables and views. Using features of the SQL procedure to debug, test, and optimize the performance of SQL queries is also discussed.

Prerequisites

Before attending this course, you should be able to

- submit SAS programs on your operating system
- create and access SAS data sets
- use arithmetic, comparison, and logical operators
- invoke SAS procedures.

You can gain this experience from the [SAS Programming I: Essentials](#) course. No knowledge of SQL is necessary.

Course Contents

Introduction

- understanding the purpose, design, uses, and terminology of SQL
- introducing the case study for the course

Basic Queries

- learning the features and functionality of the SQL procedure
- specifying columns
- specifying rows
- summarizing data with column and row functions, grouping data, performing analyses on groups of data, subquerying, and remerging
- ordering data
- customizing query output

Combining Tables

- querying multiple tables using joins
- understanding Cartesian products
- using union, intersect, and other set operators to combine tables
- comparing how the SQL procedure and the DATA step combine tables

Creating and Modifying Tables and Views

- creating tables
- creating views
- using views to simplify queries and access changing data
- understanding performance and space issues related to using views

- creating indexes
- understanding the advantages and disadvantages of using an index
- maintaining tables, views, and indexes

Additional SQL Procedure Features

- using SQL procedure features for testing programs
- using dictionary tables and views
- controlling job execution
- using the SAS macro facility with the SQL procedure

Classroom Course Materials

Students attend classroom courses in one of our public training centers. You receive a hardcopy of the course notes.