

# SAS SQL 1: Essentials

Course Code: SISQL1

Delivery Method: Instructor-led (classroom)

Duration: 2 Days

## OVERVIEW

Learn how to:

- Query and subset data
- Summarize and present data
- Combine tables, including complex joins and merges
- Create and modify table views and indexes
- Replace multiple DATA and PROC steps with one SQL query

## WHO SHOULD ATTEND

SAS programmers and business analysts

## 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 1: Essentials course. No knowledge of SQL is necessary.

This course is appropriate for students who are using SAS 9 software.

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## COURSE OUTLINE

### Introduction

- An overview of SAS foundation
- Course logistics
- Course data files
- Introducing the Structured Query Language

### Basic Queries

- Overview of the SQL procedure
- Specifying columns
- Specifying rows

### Display Query Results

- Presenting data
- Summarizing data

### SQL Joins

- Introduction to SQL joins
- Inner joins
- Outer joins
- Complex SQL joins

### Subqueries

- Noncorrelated subqueries

### Set Operators

- Introduction to set operators
- UNION operator
- OUTER UNION operator
- EXCEPT operator
- INTERSECT operator

### Creating Tables and Views

- Creating tables with the SQL procedures
- Creating views with the SQL procedures

### Advanced PROC SQL Features

- Dictionary tables and views
- Using SQL procedures options
- Interfacing PROC SQL with the macro language

### Learning More

- SAS resources
- Beyond this course

### Self-Study Topics

- Correlated subqueries
- Introduction to indexes
- Creating indexes
- Maintaining tables with the SQL procedure
- Integrity constraints
- Creating and using macro variables in PROC SQL

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