

# Accessing Relational Databases and Spreadsheets Using SAS/ACCESS® Software

**Duration:** 1.0 day

**CEUs:** 0.6

## AUDIENCE

This course is designed to teach students how to get data from a variety of relational databases. We teach access to the specific databases used in the organization. Data can be imported into SAS from these databases for analysis and then loaded back into these databases and spreadsheets. This class covers the optimization techniques available with SAS, SQL and external databases, but does not teach how to write SQL. Refer to the Processing course to learn more about SQL. This course focuses on using the SAS/ACCESS® technique of reading and writing data from relational database management systems and external third party software.

## BENEFITS

Students will learn to:

- Use Dynamic Data Exchange
- Work with relational databases
- Use the Libname statement to connect to databases
- Understand SQL pass through capabilities

## PREREQUISITES

Programming I: SAS Essentials course or equivalent understanding.

## COURSE TOPICS

### **Relational Database and Spreadsheet Data**

- Why are relational databases used
- The difference between an RDBMS and a table
- What are PC files
- Software needed

### **Connecting to RDBMs with Libname statements**

- What is an engine
- The structure of the Libname statement for RDBMs
- Embedded Libnames in SQL code
- Engines supported by SAS
- How ODBC connectivity works

### **The SQL Pass-Through Facility**

- What is a query
- Understanding ANSI standard SQL
- Using SQLPT to pass queries to RDBMs

### **How SAS Joins Data**

- The difference between an SQL join in SAS and an SQL join in a RDBMs
- Joining different database information
- Contrasting the Data step merge process

### **SQL Efficiency Topics**

- Where is the work done
- The difference between the Libname and Proc SQL
- SQL Options

### **Dynamic Data Exchange The Wizards**

- Proc Import
- Proc Export

### **Other Data**

- Proc DBLOAD and Dynamic Data Exchange
- ODBC connectivity
- Using ACCESS and VIEW Descriptors

Software Used: Base SAS and SAS/ACCESS® Software