

Base SAS (45 hours)

Program 1

Introduction to SAS and SAS Programs
Submitting a SAS Program
SAS Program Syntax

Accessing Data, Reporting & Formatting Data Values
Examining & Accessing Data Sets
Sorting and Grouping Data Using SAS Formats

Reading & Manipulating Data
SAS Data Sets
Excel & Raw Data Files
Creating Summary Reports
Combining Data Sets

Program 2

Summarizing Data
Writing Observations
Writing to Multiple SAS Data Sets
Accumulating Totals for a Group of Data

Data Transformations, Debugging Technique
Manipulating Character & Numeric Values
Converting Variable Type

Restructuring a Data Set
Loop
Arrays

Advanced SAS (45 hours)

Macros

Introduction
Overview of SAS Foundation
Purpose of the Macro Facility
Program Flow

Macro Variables
Introduction to Macro Variables
Macro Variable Reference
Automatic & User Defined
Macro Variable

Macro Definition
Defining and Calling Macros
Macro Parameters

Data Step and SQL Interfaces
Creating Macro Variables in the Data Step
Indirect References
Conditional Processing
Parameter Validation
Iterative Processing

SQL

Introduction
Introducing SQL.

Basic Queries
Overview of SQL Procedure
Specifying Columns
Specifying Rows

Displaying Query Results
Presenting Data
Summarizing Data

SQL Joins
Objective Functions, Constraints and Solving LP & GP Problems

Set Operators
The Union, Outer union, Except, Intersect Operator

Creating Tables and Views
Creating Tables & views
Advanced Proc SQL Features
Dictionary Tables

Program 3

Introduction
Measuring Efficiencies

Controlling I/O Processing and Memory
Controlling I/O
Reducing the Length of Compressing SAS Datasets

Accessing Observations
Creating a Sample Dataset
Creating an Index
Using an Index

Using Data Step Arrays
Introduction to Lookup Techniques
Using One-Dimensional Arrays
Using Multidimensional Arrays
Loading a Multidimensional Array from a SAS Dataset

Using Data Step Hash and Hiter Objects
Using Hash Object Methods
Loading a Hash Object with Using the Data Step
Hiter Object

Combining Data Horizontally
Data Step Merges and SQL Join
Using an index
Combining Summary & Detailed Data

Experiential Learning and Training (10 hours)

Soft Skills
Business Communication
Interview Skills
Corporate Etiquette
Aptitude
Mock Interviews

Statistics
Sampling, Inferential Statistics
Hypothesis Testing

Industry Mentorship
Evaluation of Case Studies & Project Work.

CASE STUDIES



TITANIC

An interesting project where students are given the task to predict the survival of passengers on the Titanic based on various factors such as gender, age, passenger class and port of embarkation.



COLONIAL BROADCASTING

A major American television network, must determine whether fact-based or fiction-based television movies garner higher ratings. Furthermore, the network must decide whether to accept a fixed fee or a sliding-scale contract.



CLASS EXAMINATION

Here we look at a class with 22 students and how they performed in a given exam. Using analytical tools, you need to identify how the overall class performed and provide a report on the performance of every student in this examination.