## **SAS Programmers**

**Duration: 24 Hours** 

Day 1 - Base SAS

Overview of SAS, Setup & Scope

Introduction to SAS interface

Syntax understanding

SAS Datasets - Import & Export

**Data Manipulation Techniques** 

SUBSTR, SCAN, FIND, INTCK, INTNX. COMPRESS, STRIP functions etc

Day 2

Sorting datasets - PROC SORT

Mathematical Functions - SUM, MEAN, MIN, MAX, ABS, etc

**Conditional Logic** 

Transposing the data

Subsetting functions - IF & WHERE

MEANS, UNIVARIATE, FREQ, TABULATE, SGPLOT procedures

Arrays

Day 3

First. & Last. Processing

Do Loops

**RETAIN** statement

Working with Flat Files

SAS MERGE

Day 4

Variable Types

Formats & Informats

PROC TABULATE, PROC REPORT, User defined formats

SYMPUT, CAT Family Functions

Contents & Compare Procedure

Day 5

Case Study (End to End)

Problem Solving related to daily work

Tips for Certifications

Automation techniques

Day 6 -8 - Advanced SAS

SAS Macros

Macro Functions

Enhancing Reports

Collectively Using All SQL + Macros with SAS

Query Syntax & Indexes

Types of Joins

Types of Operators

Optimizing SAS Code

Interpreting Logs

Case Study

**Debugging Techniques**