

SAS Clinical Course Content:

1. SAS EXPOSURE IN ORGANISATIONS

- History of SAS
- SAS comes in ERP sector or not? Why?
- What is Clinical Research Study?
- What is SOP (Standard Operating Procedure)?
- What is DBMS?
- What is SAP (Statistical Analysis Plan)?

2. GETTING STARTED WITH SAS SYSTEMS

- Managing windows in SAS window environment
- Why using the SAS in different sectors.
- How to use the data step to read and manipulate complex forms of data
- Write Data and Proc steps.
- Data step compile and execution
- Read any type of external raw data into SAS
- Reading raw data SAS environment into DATA SET using Input statement & advance INLIFE statement options
- Working with Data Storage in SAS libraries creation for user defined libraries and multi-engine architecture
- Reading data from data set to another data set.
- To manage the SAS window environment used with global options.
- To manage existing data with controlling statements and expressions
- Creating Summary Information, SAS Functions, Transforming Data
- Changing variable types using the PUT and INPUT functions summarizing data files
- To export data from data sets to delimiter files using with data set block
- Understand error messages in the SAS Log and debug your program

3. PERFORM ITERATIVE PROCESSING ON DATA

- Using Do loops for repetitive calculations and processing
- Using Arrays to process across an observations and processing
- Using DO WHILE and DO UNTIL statements for conditional looping

4. UTILITIES TO MANAGE AND WORK WITH DATASETS

- Using the update statement to update data in existing dataset.
- Using the MODIFY statements to update and modify data in place
- Merging concepts
- Concatenation concept in merging
- Interleaving concept and merging
- Different kind of match merging using MERGE statement using the contribution (IN=) option in merge concept
- Using ODS concept to generate reports
- Role of ODS concepts to reporting SAS output
- To generate SAS output in different panels like RTF, HTML,PDF and XML
Using ODS

5. RELEVANT BASE SAS PROCEDURES

6. UTILITY PROCEDURES

- Import Procedure
- Export Procedure
- Dbload Procedure
- Copy Procedure
- Cport Procedure
- Cimport Procedure
- Delete Procedure
- Setininte Procedure
- Options Procedure
- Template Procedure
- Append Procedure
- Compare Procedure
- Sort Procedure
- Datasets Procedure
- Print to Procedure
- Format Procedure
- Transpose Procedure
- Access Procedure

7. REPORTING PROCEDURES

- Print Procedure
- Tabulate Procedure
- Report Procedure

- Chart Procedure
- GchartT Procedure
- Plot Procedure
- Gplot Procedure

8. STAT PROCEDURES

- Means Procedure
- Freq Procedure
- Summary Procedure
- Rank Procedure
- Univariate Procedure
- Test Procedure
- Corr Procedure
- Anova Procedure
- Freq Procedure
- Reg Procedure
- Ztest Procedure
- Glm Procedure

9. How to use PROC SQL to retrieve INFORMATION from their Data

- Introduction to SQL Concepts
- Create new tables, indexes , views and reports

10. Joining Data

- What are Cartesian Products , what is join
- Inner , FULL, OUTER, LEFT and RIGHT Joins
- Union join, Cross joins
- Set Operator us such as union and intersection joining multiple tables

11. ADVANCED SQL Topics

- HOW TO USE SAS MACROS IN SQL
- How to retrieve Raw data different from DATABASES to SAS environment using SQL Statements
- To create table in different databases using SAS sql statement
- To manage in different databases using SAS Sql Statements

12. PASS TROUGH FACILITY

- Uses of pass through facility
- How to communicate with other database like Access, Oracle, DB2
- To control and manage other databases from the SAS

13. SAS/MACROS

- Macro Concepts & Advantages
- SAS Macro Language
- Macros And Macro Variables
- Creating Macro Variables & Using Macro Variables
- Creating Modular Code With Macros
- Invoking A Macro
- Adding Parameters to Macros
- Writing Macros With Conditional Logic
- Using Various Procedures in Macro Variables
- Nesting of Macros
- Multiple And Multi-Level Macros
- Macro Functions

14. SAS DATAWAREHOUSING

- DATAWAREHOSING Concepts
- What is ETL
- SAS/ETL Concepts
- SAS/OLAP Concepts