



SAS CLINICAL SYLLABUS

DURATION: - 60 Hours

PART - I

● BASE SAS

- Introduction To Sas System & Architecture
- History And Various Modules
- Features
- Variables & Sas Syntax Rules
- Sas Data Sets
- Data Set Options
- Operators
- If – Then Else Statement
- Where Statement
- Creating & Redefining Variables
- Reading Raw Data
- Infile Statement With Options
- Multiple Observations and Multiple Datasets.
- Input Styles
- SAS Functions
- Select Statement
- Do Loops
- Leave and Continue Statements
- Output Statement & Put Statement
- Stop And Error Statements
- Array Statement
- Modifying And Combining Data Sets
- Updating Master Data Set
- Key Board Macros & Add Abbreviations
- Display Manager Commands

● BASE SAS PROCEDURES

- Proc Sort
- Proc Print
- Proc Means
- Proc Freq
- Proc Plot
- Proc Chart
- Proc Compare
- Proc Copy
- Proc Summary
- Proc Append
- Proc Datasets
- Proc Contents
- Proc Delete
- Proc Format

- Proc Printto

- **SAS/REPORTS**
 - Frequency Report
 - One-Way Frequency Report
 - Cross Tabular Frequency Report
 - Summary Statistics
 - Creating A List Report
 - Define Statement
 - Order Usage and Group
 - Printing Grand Totals
 - Rbreak Statement
 - Tabulate Procedure
 - One-Dimensional Tables
 - Two-Dimensional Tables
 - Obtaining A Total
 - Analysis Variables with options
 - Summary Statistics

- **SAS/ODS**
 - Creating Rtf File
 - Creating Html File
 - Creating Pdf File
 - Creating Xml File

PART -II

- **ORACLE-SQL CONCEPTS**
 - Introduction
 - History
 - Features
 - Sql Command Set
 - Operators In Sql
 - Order By Clause
 - Group By Clause
 - Having Clause
 - Distinct Clause
 - Create and Insert
 - Deleting,Populating And Updating
 - Sub Queries

- **SAS/SQL**
 - Introduction To SAS/SQL

- Features & Uses
 - Terminology
 - Data Types, Key Words, & Operators
 - Functions, Predicates & Functions
 - Formatting Output
 - Group By Clause, Order By Clause & Having Clause
 - Case Expression and Conditional Logic.
 - Creating ,Populating & Deleting Tables
 - Sub Queries
 - Alter Table Statement
 - Renaming A Table & Columns
 - Changing Column's Length
 - Joins & Views
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- **SAS/ACCESS**
 - Import & Export Procedures
 - Importing data from Ms-Access & Ms-Excel
 - Importing data from Oracle database
 - DbLoad Procedure
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- **SAS/GRAPH**
 - Gchart Procedure
 - Vertical, Horizontal, Pie
 - Donut
 - Group,Subgroups
 - Gplot Procedure
 - Mutliple Plots & Overlay
 - Symbol Statement
 - Title and Footnote Statements
 - Goptions
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- **SAS/MACROS**
 - Macro Concepts
 - Macros And Macro Variables
 - Creating Macro Variables
 - Using Macro Variables
 - Creating Modular Code With Macros
 - Invoking A Macro
 - Adding Parameters To Macros
 - Macros With Conditional Logic
 - Using Various Procedures In Macros
 - Automatic Variables
 - Macro Functions
 - Including External Macros

- SAS/STAT
 - Proc Univariate
 - Proc Corr
 - Proc Reg
 - Proc Anova
 - Proc Rank
 - Proc Transpose

PART-III (CLINICAL TRIALS)

- The Statistical Programmer's Working Environment
- Pharmaceutical Industry Vocabulary
- Statistical Programmer Work Description
- The Drug/Device Development Process
- Classifying Clinical Trial Data
- Introduction to Clinical Trials & Definition
- Phases of Clinical trials
 - Phase I
 - Phase II
 - Phase III
 - Phase IV
- What's involved in a clinical trial?
- What is CRF? (Case Report Form).
- What is ACRF (Annotated CRF), why we need to Annotate?
- What is mean by Protocol?
- Protocol synopsis
- Primary objective(s)
- Secondary objective(s)
- Study design
- Randomization

- Types of Blinding (Single Blind, Double Blind, Triple Blind)
- Placebo Effects
- Inclusion criteria
- Exclusion criteria
- Premature patient withdrawal
- Investigational and control drugs
- Treatment arms
- Study drug discontinuation
- Clinical Data Interchange Standard Consortium (CDISC)
- Standard Data Tabulation Model (SDTM)
- SDTM Implementation Guide and Its Versions
- SDTM Fundamentals
- Working on Clinical Trial data like Demographics, Medical History, Adverse Events etc.

NOTE:

- Free Course Material & Certification Guidance.
- Normal Track, Fast Track & Weekend Batches are also there.