Base SAS – 7 Day Course

Day 0 – Getting Started with SAS

Goal: Familiarize with the SAS environment and set up the platform.

- What is SAS? Why is it used?
- Applications in healthcare, finance, marketing, etc.
- Types of SAS platforms: SAS Studio, SAS OnDemand, SAS Enterprise Guide

Hands-on:

- Create a SAS Academic profile
- Set up SAS OnDemand for Academics
- Explore the SAS Studio interface
- Navigate libraries and folders

Day 1 – Data Step Basics

Goal: Understand how to create, read, and modify data in SAS.

- Structure of a SAS program (DATA and PROC steps)
- Creating datasets with DATA step
- Input styles: List, Column, and Formatted

Hands-on:

- Create a dataset manually using DATALINES
- Read data from an external file (CSV)

Day 2 – Data Inspection and Summary

Goal: Explore datasets using PROC steps.

- PROC PRINT, PROC CONTENTS, and PROC MEANS
- Understanding descriptors vs. data portion
- Variable types: Numeric vs. Character

Hands-on:

- Display and summarize data
- Use LABEL, FORMAT, and TITLE statements

Day 3 – Data Manipulation

Goal: Modify data values and structure.

- Creating new variables with IF, ELSE, and WHERE
- Using assignment and conditional logic
- Combining datasets: SET, MERGE, BY

Hands-on:
- Create derived variables
- Combine multiple datasets

Day 4 – Formats, Informats & SAS Functions

Goal: Format data and perform transformations.
- Difference between formats and informats
- Date and time functions (TODAY(), INTNX(), INTCK())
- Character functions (SUBSTR, UPCASE, SCAN)
- Numeric functions (SUM, ROUND, MEAN)

Hands-on:
- Convert character to date using informat
- Format values for better readability

Day 5 – Data Sorting and Filtering

Goal: Organize and extract subsets of data.
- PROC SORT with BY and NODUPKEY
- Subsetting with WHERE and IF
- Removing duplicates

Hands-on:
- Sort data and extract top/bottom records
- Filter based on multiple conditions

Day 6 – Reporting and Exporting

Goal: Generate and export summary reports.
- PROC FREQ, PROC REPORT, PROC TABULATE
- Exporting data to Excel, CSV
- Creating simple plots with PROC SGPLOT

Hands-on:
- Frequency tables and cross-tabulations
- Export final dataset to Excel

Day 7 – Project Day: Apply What You Learned

Goal: Work on a real-world dataset end-to-end.
- Import a real dataset (e.g., student scores, patient records)
- Clean, transform, analyze, and report

- Create a final PDF or Excel report

Bonus:

- Tips for SAS certification
- Sample interview questions