

SAS PROGRAMMING FAST TRACK – FUNDAMENTALS

Audience

This is the most comprehensive way to learn to write SAS programs and accomplish basic data-processing tasks. This five-day course condenses the SAS Programming I and II courses, which are normally conducted over 6 days. This course teaches the basics of programming with SAS, including structure, using basic functions and commands, merging, producing basic reports, manipulating storing and cleansing data as well as showing you how to produce results faster.

Duration : 5.0 days

Course Description [\[Click to register ONLINE \]](#)

This five-day intensive course focuses on how to

- create data sets from different types of data
- investigate and summarize data by generating frequency tables and descriptive statistics
- create SAS data variables and recode data values
- subset data
- combine multiple SAS files
- create listing, summary, HTML, and graph reports
- manage SAS data set input and output
- perform data manipulations and transformations
- process data iteratively with DO loops and arrays

Prerequisites

Before attending this course you should be able to

- understand file structures and be able to create and access files on your operating system(s)
- write system commands to create and access system files
- have completed an undergraduate degree with a major in IT covering programming languages or have one or more years of business programming experience

Course Contents

Getting Started with the SAS System

- accessing the SAS System
- navigating among the SAS programming windows
- understanding the difference between batch mode and interactive mode
- opening and submitting a program in the Program Editor window
- checking the SAS log for program errors
- examining your program's output
- understanding data sets, variables, and observations
- understanding DATA and PROC steps
- diagnosing and correcting programming errors
- explaining SAS syntax and SAS naming conventions

Getting Familiar with SAS Data Sets

- explain the concept of a SAS data library
- differentiate between a permanent library and a temporary library
- investigate a SAS data library using the CONTENTS procedure

Producing List and Summary Reports

- generate simple list reports using the PRINT procedure
- display selected columns and rows in a list report
- sorting observations in a SAS data set
- creating one-way and two-way frequency tables using the FREQ procedure
- generate simple descriptive statistics using the MEANS procedure
- using the REPORT procedure to create a listing reports grand totals

Enhancing Output

- customizing report appearance
- formatting data values
- creating HTML reports

Creating SAS Data Sets

- using column input and formatted input
- examining data errors
- assigning variable attributes

Programming with the DATA Step

- reading SAS data sets and creating variables
- executing statements conditionally using IF-THEN logic
- controlling the length of character variables explicitly with the LENGTH statement
- selecting rows to include in a SAS data set
- using SAS date constants

Combining SAS Data Sets

- using the SET statement to concatenate two or more SAS data sets
- using the RENAME= data set option to change the names of variables
- using the SET and BY statements to interleave two or more SAS data sets
- match-merging two or more SAS data sets

Controlling Input and Output

- outputting multiple observations
- writing to multiple SAS data sets
- selecting variables and observations
- writing to external files

Summarizing Data

- creating an accumulating total variable
- accumulating totals for a group of data

Reading and Writing Different Types of Data

- reading delimited raw data files
- controlling when a record loads
- reading hierarchical raw data files

Data Transformations

- manipulating character variables
- manipulating numeric variables
- manipulating numeric variables based on dates
- converting variable type

Processing Data Iteratively

- performing DO loop processing
- performing SAS array processing