

Big Data Executive Program



THE
POWER
TO KNOW[®]

Big Data Executive Program

Business Visualization for Big Data (BV)

SAS Visual Analytics help people see things that were not obvious to them before. Even when data volumes are very large, patterns can be spotted quickly and easily. Visualizations convey information in a universal manner and make it simple to share ideas with others. It lets people ask others, "Do you see what I see?" And it can even answer questions like "What would happen if we made an adjustment to that area?"

Duration: 88 hours / 11 days (RM8,775) Total Savings 35%

What you get: Aspirants who want to become Business Data Visualization analysts /experts and build a strong SAS programming foundation to manipulate data, perform queries and analyses, and generate reports. Additionally, wants to access the power of SAS for analysis and report generation on big data using the point-and-click interface.

Who should attend: Business, Data, and Statistical Analyst

Prerequisites: No particular prerequisites. Flair of any programming language is preferred however not necessary

Subjects:

- SAS Programming I: Essentials (3 days)
- SAS Programming II: Data Manipulation Techniques (3 days)
- SAS Enterprise Guide 1: Querying and Reporting (2 days)
- SAS Visual Analytics: Fast Track (3 days)

*flexibility to complete the program at your own pace



SAS Programming 1: Essentials

Duration: 3 days

This course is for users who want to learn how to write SAS programs. It is the entry point to learning SAS programming and is a prerequisite to many other SAS courses.

Learn how to

- navigate the SAS Studio programming environment
- navigate the SAS Enterprise Guide programming environment
- navigate the SAS windowing environment
- read various types of data into SAS data sets
- create SAS variables and subset data
- combine SAS data sets
- create and enhance listing and summary reports.

Who should attend: Anyone starting to write SAS programs

Prerequisites

Before attending this course, you should have experience using computer software. Specifically, you should be able to

- understand file structures and system commands on your operating systems
- access data files on your operating systems.

No prior SAS experience is needed.

Course Contents

Introduction

- overview of SAS Foundation
- course logistics
- course data files

SAS Programs

- introduction to SAS programs
- submitting a SAS program
- SAS program syntax

Accessing Data

- examining SAS data sets
- accessing SAS libraries

Producing Detail Reports

- subsetting report data
- sorting and grouping report data
- enhancing reports

Formatting Data Values

- using SAS formats
- creating user-defined formats

Reading SAS Data Sets

- reading a SAS data set
- customizing a SAS data set

Reading Spreadsheet and Database Data

- reading spreadsheet data
- reading database data

Reading Raw Data Files

- introduction to reading raw data files
- reading standard delimited data
- reading nonstandard delimited data
- handling missing data

Manipulating Data

- using SAS functions
- conditional processing

Combining Data Sets

- concatenating data sets
- merging data sets one-to-one
- merging data sets one-to-many
- merging data sets with nonmatches

Creating Summary Reports

- using the FREQ procedure
- using the MEANS and UNIVARIATE procedures
- using the Output Delivery System

Learning More

- SAS resources
- next steps

SAS Programming 2: Data Manipulation Techniques

Duration: 3 days

This course is for those who need to learn data manipulation techniques using SAS DATA and procedure steps to access, transform, and summarize SAS data sets. The course builds on the concepts that are presented in the SAS Programming 1: Essentials course and is not recommended for beginning SAS software users.

Learn how to

- control SAS data set input and output
- combine SAS data sets
- summarize, read, and write different types of data
- perform DO loop and SAS array processing
- transform character, numeric, and date variables.

Who should attend: Business analysts and SAS programmers

Prerequisites

Before attending this course, you should have completed the SAS Programming 1: Essentials course and used SAS for at least one month. Specifically, you should be able to

- submit a SAS program
- diagnose and correct syntax errors
- examine descriptor and data portions of a SAS data set
- access SAS data libraries
- read and create SAS data sets
- read Excel spreadsheets
- read delimited raw data files
- examine data errors when reading raw data files
- use SAS procedures to validate data
- clean invalid data
- create variables
- combine SAS data sets
- use global statements
- use labels and formats, including user-defined formats
- subset observations
- produce summary reports using the FREQ and MEANS procedures.

Course Contents

Introduction

- course logistics
- creating course data files

Controlling Input and Output

- writing observations explicitly
- writing to multiple SAS data sets
- selecting variables and observations

Summarizing Data

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

Reading Raw Data Files

- reading raw data files with formatted input
- controlling when a record loads

Data Transformations

- manipulating character values
- manipulating numeric values
- converting variable type

Debugging Techniques

- using the PUTLOG statement

Processing Data Iteratively

- DO loop processing
- conditional DO loop processing
- SAS array processing
- using SAS arrays

Restructuring a Data Set

- rotating with the DATA step

Combining SAS Data Sets

- using data manipulation techniques with match-merging

Creating and Maintaining Permanent Formats

- creating permanent formats

Other SAS Languages

- an overview of other languages
- using the SQL procedure
- the SAS macro language

Learning More

- SAS resources
- next steps

SAS Enterprise Guide 1: Querying and Reporting

Duration: 2 days

This course is for users who need to access, manage, and summarize data from different sources, and present results in reports and graphs. This course focuses on using the menu-driven tasks in SAS Enterprise Guide, the point-and-click interface to SAS, to create queries and reports. It does not address writing SAS code or statistical concepts.

Learn how to

access and manipulate local and remote data of various types
create queries that filter and summarize data, compute new columns, and join multiple tables
create frequency and tabular reports
create interactive graphs
automate output results.

Who should attend: Data, business, and statistical analysts who licensed or are considering licensing SAS Enterprise Guide or SAS Analytics Pro and would like training to get started with data access, management, and analysis

Prerequisites

This course is designed for users with no programming experience or SAS knowledge. Before attending this course, you should be familiar with Windows and other software, such as Microsoft Office or spreadsheet programs.

Course Contents

Getting Started

- introducing SAS Enterprise Guide
- course scenarios

Working with Data in a Project

- understanding the SAS data structure
- accessing SAS and DBMS data
- importing data files

Getting Started with Tasks

- introduction to tasks and wizards
- creating a frequency report
- generating HTML, PDF, and RTF output
- creating a listing report
- filtering data in a task
- creating a graph

Creating Simple Queries

- filtering and sorting data
- creating new columns with an expression
- grouping and summarizing data in a query
- joining tables

Creating Summarized Output

- generating summary statistics
- creating a summary report with the Summary Tables task

Using Prompts in Tasks and Queries

- prompting in projects
- creating and using prompts in tasks
- creating and using prompts in queries

Customizing and Organizing Project Results

- combining results
- updating and organizing projects

Learning More

- SAS resources
- beyond this course

Writing and Submitting SAS Programs

- writing and submitting SAS programs

SAS Visual Analytics: Fast Track

Duration: 3 days

This course teaches how to explore data and build reports using SAS Visual Analytics. You will learn how to build queries in SAS Visual Data Builder and you will also learn the basics of SAS Visual Analytics Administrator.

- Learn how to** use SAS Visual Analytics to
- interact with the environment via the SAS Visual Analytics Hub
 - access and prepare data for exploration, analysis, and reporting
 - explore data using the SAS Visual Analytics Explorer
 - create reports with the SAS Visual Analytics Designer
 - use the SAS Visual Data Builder and understand the capabilities of the SAS Visual Analytics Administrator
 - view reports using the SAS Visual Analytics Viewer and SAS Mobile BI.

Who should attend: Business analysts who need to learn how to use the functionality provided by SAS Visual Analytics

Prerequisites

No SAS experience or programming experience is required, although you should have some computer experience. Specifically, you should

- be able to log on and off a computer and use a keyboard or mouse
- know how to use a Web browser to access information.

Course Contents

Getting Started with SAS Visual Analytics

- exploring SAS Visual Analytics concepts
- using the SAS Visual Analytics home page
- discussing the course environment and scenario

Administering the Environment and Managing Data

- exploring SAS Visual Data Builder
- exploring SAS Visual Analytics Administrator

Using SAS Visual Analytics Explorer

- examining Visual Analytics Explorer
- selecting data and defining data item properties
- creating visualizations
- enhancing visualizations with analytics
- interacting with visualizations and explorations

Designing Reports with SAS Visual Analytics

- examining the SAS Visual Analytics Designer interface
- creating a simple report
- creating data items and working with graphs
- working with filters and report sections
- establishing interactions, links, and alerts
- working with gauges and display rules
- working with tables
- working with other objects

Viewing SAS Visual Analytics Reports

- viewing reports on the Web
- viewing reports on a mobile device
- viewing reports with SAS Office Analytics

Case Study: Creating Analyses and Reports with SAS Visual Analytics

- demonstration: managing LASR tables
- exercises

Learning More

- SAS resources
- beyond this course



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