

Gupta Programming SAS Certified Base Professional, Simi Valley, CA <u>http://www.SASSavvy.com</u> Register by phone (805) 551-3222 or by e-mail GuptaProgramming@gmail.com

# **Data Science using SAS**

Make Better Business Decisions with Better Data!

## **COURSE DESCRIPTION**

The Data Science using SAS class is a unique and focused class to better prepare you for high demanding Data Science Analyst level positions. This three day content class teaches you to understand the data to answer analysis questions as well as apply data cleaning techniques. All lecture sessions will be scheduled across several weeks and are three hours each. In general, the online class will be schedule on 8 weekdays from 7 to 9 am PT and will be recorded for future viewing. E-mail support is provided to all students.

The core topics consist of SAS Enterprise Guide, Base and Advanced certification exam preparation as well as SQL for data manipulation and data cleaning. These are all essential topics across all big data industries. There are also advanced topics on data and visual analysis and clinical data and CDISC standards for the pharmaceutical and medical industries.

This class requires some computer programming experience in any language or knowing SAS programming since the class will be fast paced. You will be expected to participate in class discussions and question and answer sessions. Your class exercises will be written in SAS which is a powerful statistical programing language used across all industries. You will have access to online SAS as well as an annual premium membership to SASSavvy.com.

## OUTLINE

## A. Working with SAS Enterprise Guide

This topic shows you how to access SAS point and click system as well as write SAS programs.

- 1. Getting Started with SAS Enterprise Guide 7.1
- 2. Applying Tasks to Access and Review Files

## **B.** Applying Data Cleaning Techniques

This topic shows how you can better understand and clean your data.

- 1. Checking Values of Character Variables
- 2. Checking Values of Numeric Variables
- 3. Checking for Missing Values
- 4. Working with Dates
- 5. Looking for Duplicates and n Observations per Subject

#### C. Using SQL for Data Creation and Query

This topic prepares you with key SAS examples using the power of SQL.

1. Quick Results with Proc SQL e-Guide

- 2. Table Access and Retrieval
- 3. Table Structure and Content Operations

### D. Reporting, Statistical and Visual Analysis

This topic prepares you with key SAS examples for statistical and visual analysis.

- 1. PROC REPORT for publication quality tables
- 2. PROC TABULATE for quick summary tables
- 3. Type of Statistical Analysis
- 4. Survival Analysis and Plots
- 5. Clinical Trials Visual Analysis

#### E. CDISC Compliance and the Pharmaceutical Industry

This topic prepares you with key CDISC concepts required for all SAS programmers in the pharmaceutical industry.

- 1. Overview, Specifications and FDA Requirements
- 2. Compare and Contrast SDTM and ADaM Steps
- 3. SDTMs 80% / 20% Mapping Rule
- 4. ADaM Models ADSL, BDS and ADAE

#### F. Preparing for SAS Base Certification Exams

This topic prepares you with key SAS examples that cover all the base certification topics.

- 1. Accessing Data
- 2. Creating Data Structures
- 3. Managing Data
- 4. Generating Reports
- 5. Handling Errors

#### G. Preparing for SAS Advanced Certification Exams

This topic prepares you with key SAS examples that cover all the advanced certification topics.

- 1. Accessing Data Using SQL
- 2. Macro Processing
- 3. Advanced Programming Techniques

Course Length: Three-Day Content Course