

# Graphing in SAS Software

**Duration: 2 units**

**CEUs: 1.2**

## AUDIENCE

This course teaches the graphing techniques available in SAS/Graph Software. SAS is not only designed for analysis variables and reports. We learn about its capabilities for plotting, charting, creating custom and three-dimensional graphs. Students will learn how to take information analyzed in SAS, graph it and export the graphs to other software such as a word processor. Students learn that in one program execution, SAS can produce thousands of graphs.

## BENEFITS

Students will be able to:

- ♦ *Create Plots and Charts*
- ♦ *Use the annotate facility for graph enhancement*
- ♦ *Use symbols for interpolation techniques*
- ♦ *Create graphs and reports on the same display*
- ♦ *Create web published output*
- ♦ *Print graphs*
- ♦ *Create Choropleth, block, cylinder, surface, 2D and 3D charts and maps*
- ♦ *Create color graphs including bars and pies*

## PREREQUISITES

Programming I: SAS Essentials course or equivalent understanding.

## COURSE TOPICS

### Overview

- ♦ Types of graphs available in SAS/Graph Software
- ♦ Choosing a graph

### Creating Slides with Text

- ♦ Creating posters and slides
- ♦ Using titles, footnotes and notes
- ♦ Changing fonts, height and colors

### Creating Plots

- ♦ Setting up your data
- ♦ Plotting data
- ♦ Using interpolations
- ♦ Creating a second vertical axis
- ♦ Customizing horizontal and vertical axis information
- ♦ Changing plotted line types and colors

### Creating Bar and Pie Charts

- ♦ Building a bar chart
- ♦ Building a pie chart
- ♦ Grouping and subgrouping data
- ♦ Specifying statistics to graph
- ♦ Changing colors and patterns
- ♦ Setting up labels and legends

### Graphing Using Maps in 3 Dimensions

- ♦ Creating Block Charts
- ♦ Creating Maps
- ♦ Creating Choropleth Charts
- ♦ Setting up map data sets with coordinates
- ♦ Matching data files to map data sets

### Using The Output Delivery System for Graphing

- ♦ What is ODS
- ♦ Specifying the style of output
- ♦ Creating interactive graphs
- ♦ Web publishing graphs
- ♦ Printing graphs
- ♦ Rotating Graphs
- ♦ Using the Active X capabilities

### Annotating Graphs

- ♦ How to use annotation
- ♦ Annotation data sets and values
- ♦ Labeling graphs
- ♦ Annotating images

### Graphing Utilities

- ♦ Using and storing templates
- ♦ Displaying reports and graphs on the same display
- ♦ Understanding SAS catalogs
- ♦ Moving graphs between catalogs
- ♦ Replaying graphs

Software Used: Base SAS and SAS/GRAPH® Software

