

### Course Contents

#### Prerequisite Basic Concepts

- discussing descriptive statistics
- discussing inferential statistics
- listing steps for conducting a hypothesis test
- discussing basics of using your SAS software

#### Getting Started in Enterprise Guide 7.1

- introducing to the SAS Enterprise Guide 7.1 environment

#### Introduction to Statistics

- discussing fundamental statistical concepts
- examining distributions
- describing categorical data
- constructing confidence intervals
- performing simple tests of hypothesis

#### Analysis of Variance (ANOVA)

- performing one-way ANOVA
- performing multiple comparisons
- performing two-way ANOVA with and without interactions

#### Regression

- using exploratory data analysis
- producing correlations
- fitting a simple linear regression model
- understanding the concepts of multiple regression
- building and interpreting models
- describing all regression techniques
- exploring stepwise selection techniques

#### Regression Diagnostics

- examining residuals
- investigating influential observations and collinearity

#### Categorical Data Analysis

- describing categorical data
- examining tests for general and linear association
- understanding the concepts of logistic regression and multiple logistic regression
- performing backward elimination with logistic regression