STATISTICS 1: INTRODUCTION TO ANOVA, REGRESSION, AND LOGISTIC REGRESSION

Course Code: 2444

This course is for SAS software users who perform statistical analyses using SAS/STAT software. The focus is on t-tests, ANOVA, linear regression, and logistic regression. This course (or equivalent knowledge) is a prerequisite to many of the courses in the statistical analysis curriculum.

Certification:
- SAS Certified Clinical Trials Programmer Using SAS 9
- SAS Statistical Business Analysis Using SAS 9: Regression and Modeling

Who Needs to Attend

Statisticians, researchers, and business analysts who use SAS programming to generate analyses using either continuous or categorical response (dependent) variables
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CLASSROOM LIVE $2,100 USD 3 days

Classroom Live Outline

1. Course Overview and Review of Concepts
   - Descriptive statistics
   - Inferential statistics
   - Examining data distributions
   - Obtaining and interpreting sample statistics using the univariate procedure
   - Examining data distributions graphically in the univariate and freq procedures
   - Constructing confidence intervals
   - Performing simple tests of hypothesis
   - Performing tests of differences between two group means using PROC TTEST

2. ANOVA and Regression
   - Performing one-way ANOVA with the GLM procedure
   - Performing post-hoc multiple comparisons tests in PROC GLM
   - Producing correlations with the CORR procedure
   - Fitting a simple linear regression model with the REG procedure

3. More Complex Linear Models
   - Performing two-way ANOVA with and without interactions
   - The concepts of multiple regression

4. Model Building and Effect Selection
   - Automated model selection techniques in PROC GLMSELECT to choose from among several candidate models
   - Interpreting and comparison of selected models

5. Model Post-Fitting for Inference
   - Examining residuals
6. Model Building and Scoring for Prediction
   - The concepts of predictive modeling
   - The importance of data partitioning
   - The concepts of scoring
   - Obtaining predictions (scoring) for new data using PROC GLMSELECT and PROC PLM

7. Categorical Data Analysis
   - Producing frequency tables with the FREQ procedure
   - Examining tests for general and linear association using the FREQ procedure
   - Exact tests
   - The concepts of logistic regression
   - Fitting univariate and multivariate logistic regression models using the LOGISTIC procedure
   - Using automated model selection techniques in PROC LOGISTIC including interaction terms
   - Obtaining predictions (scoring) for new data using PROC PLM

Classroom Live Labs
Exercises or hands-on workshops are included with most SAS courses.

- Sep 11 - 13, 2019 | 9:00 AM - 5:00 PM | SAN FRANCISCO, CA
- Dec 18 - 20, 2019 | 9:00 AM - 5:00 PM | WASHINGTON, DC
Virtual Classroom Live Outline

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3. More Complex Linear Models
   - Performing two-way ANOVA with and without interactions
   - The concepts of multiple regression

4. Model Building and Effect Selection
   - Automated model selection techniques in PROC GLMSELECT to choose from among several candidate models
   - Interpreting and comparison of selected models

5. Model Post-Fitting for Inference
   - Examining residuals
• Investigating influential observations
• Assessing collinearity

6. Model Building and Scoring for Prediction
• The concepts of predictive modeling
• The importance of data partitioning
• The concepts of scoring
• Obtaining predictions (scoring) for new data using PROC GLMSELECT and PROC PLM

7. Categorical Data Analysis
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PRIVATE GROUP TRAINING 3 days

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.

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