

## ***Advanced Predictive Modeling Using SAS Enterprise Miner 5.1***

*This Level IV course is designed for predictive modelers and data analysts who want to optimize the performance of predictive models beyond the basics.*

**Duration:** 2.0 days

**Course Description** [\[ Click to register ONLINE \]](#)

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This course continues the development of predictive models that begins in the [Predictive Modeling Using SAS Enterprise Miner 5.1](#) course. Students learn improved techniques for input selection and model assessment. They also learn to construct and evaluate two-stage and multi-stage models using SAS Enterprise Miner. Variability in model predictive performance is also discussed.

This course replaces [Two-Stage Modeling with Enterprise Miner Software](#)

### **Prerequisites**

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Before attending this course, you should

- have completed the [Predictive Modeling Using SAS Enterprise Miner 5.1](#) course
- have some experience with creating and managing SAS data sets, which you can gain from the [SAS Programming I: Essentials](#) course
- have some experience building statistical models using SAS/STAT software
- have completed a statistics course that covers linear regression and logistic regression, such as the [Statistics I: Introduction to ANOVA, Regression, and Logistic Regression](#) course.

### **Course Contents**

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#### **Review of Basic Predictive Modeling Techniques**

- creating a predictive model using SAS Enterprise Miner
- analytic challenges

#### **Improving Input Selection**

- univariate screening
- principal components
- variable clusters
- categorical input recoding
- all-subsets regression

#### **Empirical Logits and Model Adequacy**

- empirical logit plots
- input transformations

#### **Generalized Profit Assessment**

- case-dependent profits
- generalized profit plots

- total profit fraction plots

### **Building and Evaluating a Two-Stage Model**

- assessing models without a profit matrix
- building an interval target model
- non-normal error distributions
- regression trees
- interval target neural network models

### **Prediction Limits**

- profit variability
- generalized profit plots with prediction limits

### **Course Materials**

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Students attend classroom courses in one of our public training centers. You receive a hardcopy of the course notes.