

**DETAILED SCHEDULE FOR BUSINESS FORECASTING SEMINAR:
TECHNIQUES, BEST PRACTICES & APPLICATION USING
FORECAST PRO**

Day 1

9:00AM – 5:00PM

Introduction to Forecasting

A broad overview of business forecasting and its various uses within the organization. Topics include approaches to forecasting, features of data, the role of judgment, selection of appropriate forecasting methods for varied data sets and resources for forecasters.

Morning Break

Components of Data

An in-depth look at the different components found in time series data including trends, seasonal patterns, business cycles, trading-day variation, interventions (events) and noise. Discussion addresses the forms the components can take, spotting local vs. global components, interpretation of business cycle indicators and the use of decomposition routines.

Lunch

Exponential Smoothing

A survey of exponential smoothing techniques with particular emphasis on the Holt-Winters family of models and Croston's intermittent demand model. Topics include the pros and cons of using these models, when they are best used, how they work, identifying model components, parameter optimization and model diagnosis.

Forecasting Accuracy and Evaluation

A detailed look at evaluating the accuracy of forecasting methods. Topics include the distinction between within-sample and out-of-sample errors, a survey of error measurement statistics, a summary of findings from forecasting competitions and an explanation of how to use both real-time tracking reports and simulations as predictors of model performance.

Afternoon Break

PC Workshop 1

This first hands-on session familiarizes attendees with the use of the Forecast Pro software package as they are guided through sample exercises applying the ideas discussed during the lectures.

Evening Cocktail Reception

A cocktail reception will be held on the first evening, providing a relaxing environment for the attendees to socialize after the first day of the seminar.

Day 2

9:00AM – 5:00PM

Box-Jenkins (ARIMA) Models

An exploration into the use of ARIMA models for business forecasting. Topics include the advantages/disadvantages of using these models, how and when they should be applied, automatic identification procedures and model diagnostics.

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Morning break

Event-Index Models

Event-index models extend the functionality of exponential smoothing models by providing adjustments for promotions, strikes and other non-calendar based events. This unit addresses how these models work, how and when they should be used, and how to customize their design to best suit your needs

Large-Scale Forecasting

Approaches for focusing on critical items when forecasting large volumes of data. Topics include evaluating and forecasting SKU data, filtering and ABC (Pareto) classification, outlier detection & correction, exception reporting, and measuring accuracy across multiple time series.

Afternoon break

Multiple-Level Forecasting

This section explores hierarchical forecasting techniques. Topics include discussion of the need for forecasting at various levels, product vs. geographical hierarchies, reconciliation strategies, top-down vs. bottom-up approaches, the use of proportional allocation and adjustment for seasonality.

PC Workshop 2

In this session, attendees are guided through forecasting exercises and have time to work with their own data with the help of the course instructors.

Day 3

9:00AM. - 3:30PM

New Product Forecasting

This session explores various approaches for forecasting new products. Topics include the pros and cons of different methods based on a product's classification, and a review of popular methods including item supersession, forecasting by analogy and the Bass diffusion model.

Morning break

Dynamic Regression

A detailed look into the ins and outs of regression forecasting. Topics include when regression models are best applied, how to build the model, ordinary least squares, leading indicators, lagged variables, Cochrane-Orcutt models, hypothesis testing and the use of "dummy" variables.

Lunch

PC Workshop 3

This final session consists of a regression example after which attendees have time to work with their own data.