



FORECASTING METHODS AND PERFORMANCE MANAGEMENT

ABOUT ORGANIZERS



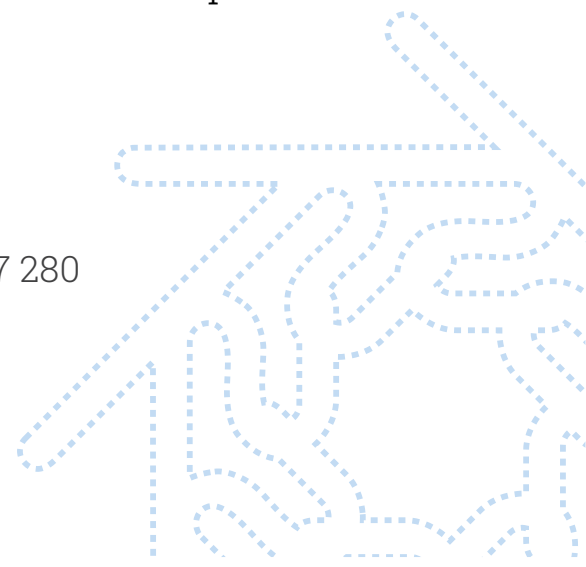
Saber Middle East is a vibrant consulting and training firm dedicated towards serving companies in the MENA region to achieve Operations Excellence. It is lead through partners who have over 20 years of international experience in USA, Brazil, the Middle East and GCC countries.



The International Institute of Forecasters (IIF), is a non-profit organization dedicated to developing the knowledge on forecasting. Its main objective is bridging the gap between theory and practice, and bringing together decision makers, forecasters, and researchers from all nations to improve the quality and usefulness of forecasting.

CONTACT INFO

Head Office: T/F +961 5 430 574 | M +961 3 977 280
Branch Office: T +971 50 648 6812
training@saber-mena.com
www.saber-mena.com



OVERVIEW

CPDF is a certification program for demand forecasters and planners working in supply chain industries, and endorsed by **The International Institute of Forecasters (IIF)**, whose purpose is to advance knowledge and research in forecasting.

The CPDF program is comprised of three levels:
Level I - Basic, Level II – Master, and Level III – Pro.

Each Level of the CPDF consists of both instructor-led workshop training hours, and independent hours to be accomplished through self-paced e-learning environment. The successful completion of each level will qualify participants to earn a certificate:

CPDF Level I - Forecasting Principles and Best Practices

CPDF Level II - Forecasting Methods and Performance Management

CPDF Level III – Certified Professional in Demand Forecasting
(Pre-requisite Levels I & II)

The CPDF qualification will address multidimensional job roles in demand forecasting such as data display, database management, understanding quantitative and qualitative projection techniques, model creation and execution, forecast accuracy measurement, model and forecaster performance analysis, organization, and collaborative planning.

Interaction will be an integral part of the program.
Computer workshops will follow each topic for practical training.

1. Full attendance of hands-on workshops is required
2. Successful submission of required worksheets through e-learning system
3. CPDF is not a test-based program; it's a hands-on workshop

 A laptop is required to run the computer exercises!



TRAINER PROFILE

HANS LEVENBACH | **PhD**



Dr. Hans is Founder and President of Delphus, Inc., which provides the PEER Planner Demand Forecasting and Replenishment Planning software solution for supply chain companies as well as hospital management organizations.

He began his career at AT&T Bell Laboratories as an applied statistician specializing in predictive analytics, forecaster training and developing decision support systems. After the breakup of the Bell System, he founded Delphus. He has taught statistics and forecasting courses at Columbia University as well as MBA Statistics at New York University.

Dr. Hans enjoys traveling and attending the annual International Symposium on Forecasting, where he gained much of the background for the most recent book. He is an elected Fellow, Past President, Treasurer of the **International Institute of Forecasters (IIF)**, and served on the editorial board of FORESIGHT, the practitioner journal published by the **IIF**. He is also a member of APICS, INFORMS, American Statistical Association and elected member of the International Statistics Institute.

In collaboration with the International Institute of Forecasters, Dr. Hans has been instrumental in designing and constructing "Certified Professional in Demand Forecasting" (CPDF) curriculum for the professional certification of practitioners globally.

Highlights

- Applied Statistician
- Associate Professor
- Founder & President

- Columbia University
- New York University

- AT&T Bell Laboratories
- Delphus Inc.
- IIF

KEY BENEFITS

Establish a framework for demand forecasting in the supply chain

Introduce a four-step process for streamlining the forecasting cycle

Define and visualize major demand forecasting techniques









Identify appropriate accuracy measures to evaluate demand forecasting and forecasting models

Complement non-traditional methods with proven approaches in forecasting model development



WHO SHOULD ATTEND?

This program is directed to groups of members involved in planning, implementing and managing the company's functions:

-  Demand Planners
-  Supply Chain Managers
-  Production Managers
-  Financial Analysts
-  Demand Forecasters
-  Operations Managers
-  Sales Managers
-  Market Analysts



Agenda

DAY 1

Part I – The Demand Forecasting and Planning Cycle in The Supply Chain

- What is demand forecasting, Planning and Management
- Why is demand forecasting so important?
- Role of demand forecasting in the supply chain
- Establishing A Forecasting Cycle– PEER Model
- Factors affecting demand forecasting (good factors)

Part II – Data Framework for Creating Forecast Decision Support Systems

- Ways to characterize demand activity
- Time horizons, lead-times and dimensions of a forecast
- Units of measures used to quantify demand
- A framework for secure data and information management
- Determining customer forecasting needs by organization
- Internal factors likely to influence forecast
- Designing a demand forecasting framework for data

Part III – Big Data: Mining, Exploration and Quality

- Predictive analytics– something is new?
- Methodologies for large-scale data exploration
- Decision Trees – progressive class distinction
- Basic statistical tools for summarizing data
- Traditional and nonconventional measures of variability
- Intelligent dashboards
- Data framework for on demand planning (SaaS)
- Identifying criteria for assessing data quality
- Handling exceptions in datasets
- Demand Forecaster as Data Scientist
- Data Process Framework and Checklist

Part IV – Forecasting with ARIMA Time Series Models

- Creating a flexible model building strategy for ARIMA Models
- Recognizing forms of stationarity and non-stationarity in time series
- Detecting autocorrelation in time series
- Identifying non-seasonal ARIMA Models
- Comparison of forecasts with prediction limits
- Implementing non seasonal ARIMA Models
- Creating an ARIMA modeling checklist

Part V – How to Create Seasonal Forecasts and Seasonal Adjustments

- Decomposition programs for seasonal adjustment
- Identifying and implementing seasonal ARIMA Models
- Creating Waterfall charts for forecast model evaluation
- Forecast test measures for multiple ARIMA models
- Best practices for ARIMA modeling

DAY 2

Part VI – Designing Regression Models for Forecasting

- Finding a linear association between two variables
- Checking ordinary correlation with a nonconventional alternative
- What are regression model assumptions?
- What is a "best" fit?
- The least square assumption demystified
- The ANOVA table output for regression analysis
- Paring the output for use in forecasting
- Creating forecasts and prediction limits

Part VII– Working with Residuals and Forecast Errors to Improve Forecasting Performance

- Dealing with lack of normality in time series regression modeling
- Looking out for "Black Swans"
- How good was the fit and what does it say about forecasting?
- Dealing with nonrandom patterns in residuals
- Impact of error term assumptions on prediction interval determination
- Creating prediction intervals for forecast monitoring
- Using prediction limits for quantifying uncertainty in forecasts
- A checklist for multiple linear regressions

Part VIII - Improving Forecasts with Subjective Judgment

- What is structured judgment?
- When to make judgmental adjustments to forecasts
- Judgmental traps in forecasting
- The Delphi Method
- The forecasting audit
- A framework for setting forecasting standards
- Functional integration
- Performance measurement
- Planning for process improvement
- Overcoming barriers and closing gaps
- Forecast horizon
- Melding quantitative and qualitative approaches for forecast development and process improvement
- Creating the final forecast with Change and Chance numbers

Get the In-House Training Experience!

Customize this course for your team. Saber Academy programs can be tailored to your training needs to suit your business requirements and relevant industry challenges. This will surely give a greater impact on developing your teams' skills and executing customer-winning strategies.

We offer great training tools within a comprehensive capacity building program.

If you have a team to train, our experts can come to you!

☐ Contact us now for more information, or to arrange a free training needs analysis

- ☐ Case Studies
- ☐ Success Stories
- ☐ Team Exercises
- ☐ Interactive Games

Valued Clients

