

MBB B7

Forecasting and Time Series Analysis

Who Should Attend:

- Individuals designing or interpreting control charts
- Demand Planners and others with forecasting responsibilities
- Mentors of Black Belts and Green Belts

Key Topics:

- Review of advanced regression analysis
- Basic time series concepts
- Smoothing methods
- Decomposition methods (level, trend, seasonal components)
- Autocorrelation and cross correlation
- ARIMA (AutoRegressive Integrated Moving Average) models
- Seasonal forecasting
- Forecasting with leading indicators
- Intervention analysis
- Evaluating forecast performance

Benefits:

- Understanding influence of autocorrelation on interpretation of control charts
- Identifying limitations of smoothing methods as forecasting tools
- Interpreting forecasts from decomposition models
- Using ARIMA models to forecast seasonal and non-seasonal data
- Incorporating effects of deliberate policy changes or unexpected events into forecasts
- Experience in developing and evaluating forecasts

Prerequisites:

- Experience with multiple regression analysis at Six Sigma Black Belt level or equivalent