

Lean Six Sigma BLACK BELT Accelerated Public / Individual Training Program



In - House / Group Training Available (Upon Request)

INTRODUCTION

- ◆ The Black Belt Accelerated Course is designed to improve process performance, deliver medium to high impact projects and achieve significant cost savings.
- ◆ Six Sigma Black Belt Accelerated is designed so that people acquire the special skills and knowledge required before leading or taking part in any continuous improvement project.
- ◆ Black Belt Accelerated will effectively use the Six Sigma tools in their organization, with customers and suppliers for achieving business improvement results.
- ◆ Black Belt Accelerated will gain through understanding of all aspects of the DMAIC model in accordance with Six Sigma principles.
- ◆ Black Belt Accelerated will gain knowledge of Lean enterprise concepts and will be able to identify non-value-added elements and activities.

Duration = 8 Days

COURSE CONTENT / CURRICULUM

SESSION 1: DEFINE & MEASURE PHASE / 3 Days

- ◆ Introduction & Overview of Six Sigma
- ◆ Cost of Poor Quality (COPQ)
- ◆ Drill Down Tree & Pareto Chart
- ◆ Project Charter Development
- ◆ Teams & Stakeholder Analysis
- ◆ Voice of Customers (VOC) & Kano Model
- ◆ SIPOC & Basic Process Mapping
- ◆ Quality Functional Deployment (QFD)
- ◆ Financial Analysis and Cost Savings
- ◆ Root Cause Analysis (RCA) Tools
- ◆ Cause & Effect Matrix
- ◆ Operational Definition
- ◆ Data Collection Plan
- ◆ Basic Statistics and Sampling Techniques
- ◆ Measurement System Analysis (MSA)
- ◆ Capability Analysis and Sigma Value
- ◆ Graphical & Value Analysis
- ◆ Detailed Process Mapping
- ◆ Fishbone Diagram
- ◆ Failure Modes and Effects Analysis (FMEA)

SESSION 2: ANALYZE PHASE / 2 Days

- ◆ Hypothesis Testing
- ◆ Advanced Statistical Root Cause Analysis tools :
 - Type 1 & Type 2 error, Degree of Freedom, Power and Sample Size, 1 Sample t-Test, 2 Sample t-Test , One way ANOVA, Test of Equal Variance (TOEV), 1 Proportion Test, 2 Proportion Test, Chi-Square Test, Non-Parametrics Analysis and Two Way ANOVA
- ◆ Advanced Graphical Analysis
 - Sigma Value / Z-Bench
 - Graphical Tools for Statistics
 - Pareto Charts
 - Box Plots

- Scatter Plots
- Matrix Plots
- Histograms
- Time Series Plots
- ◆ Regression Analysis
- ◆ Value Stream Mapping (VSM)
- ◆ Summarising Potential Factors and Potential Solutions
 - Correlation Analysis
 - Multiple Regression
 - Simple Linear Regression
 - Best Subset Regression

SESSION 3: IMPROVE & CONTROL PHASE / 3 Days

- ◆ Generating Improvement Ideas
- ◆ Design of Experiment (DOE)
- ◆ Evaluating & Selecting Best Solutions
- ◆ Solution & Training Implementation Plan
- ◆ Develop & Execute Pilot Plan
- ◆ Lean Enterprise
- ◆ Cost & Benefit Analysis (ROI)
- ◆ Process Control Plan
- ◆ Standard Operating Procedures (SOP)
- ◆ Statistical Process Control (SPC)
- ◆ Best Practice and Replication Opportunities
- ◆ Process Ownership and Dashboards

METHODOLOGY

- ◆ Simulation
- ◆ Activities
- ◆ Own Software
- ◆ Own Books
- ◆ Q & A
- ◆ Group Discussions
- ◆ Case Study
- ◆ Talk over Tea
- ◆ Networking

