

# MBizM™ Lean Six Sigma BLACK BELT PROGRAMME



## INTRODUCTION

- ◆ The Black Belt Course is designed to improve process performance, deliver high-impact projects and achieve significant cost savings.
- ◆ A Certified Six Sigma Black Belt individual is a professional who can explain Six Sigma philosophies and principles, including supporting systems and tools.
- ◆ Black Belt Participants will demonstrate team leadership, understand team dynamics and assign team member roles and responsibilities.
- ◆ Black Belt Participants will gain thorough understanding of all aspects of the DMAIC model in accordance with Six Sigma principles.
- ◆ Black Belt Participants will gain knowledge of Lean enterprise concepts, are able to identify non-value-added elements and activities.

*Duration = 15 Days*

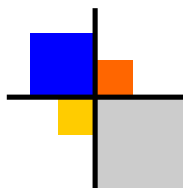
## COURSE CONTENT / CURRICULUM

### SESSION 1: DEFINE THE PROJECT (D) / 3 Days

- ◆ Introduction & Overview of Six Sigma
- ◆ Cost of Poor Quality (COPQ)
- ◆ Introduction To Statistical Analysis
- ◆ Drill Down Tree & Pareto Chart
- ◆ Quality Functional Deployment
- ◆ Project Charter Development
- ◆ Teams & Stakeholder Analysis
- ◆ Voice of Customers (VOC) & Kano Model
- ◆ SIPOC & Basic Process Mapping
- ◆ Value Stream Mapping (VSM)
- ◆ Financial Analysis and Cost Savings

### SESSION 2: MEASURE THE PROJECT (M) / 3 Days

- ◆ Root Cause Analysis (RCA) Tools
- ◆ Operational Definition
- ◆ Data Collection Plan
- ◆ Measurement System Analysis (MSA)
- ◆ Basic Statistics and Sampling Techniques
- ◆ Capability Analysis and Sigma Value
- ◆ Graphical & Value Analysis
- ◆ Cause & Effect Matrix and Fishbone diagram
- ◆ Failure Modes and Effects Analysis (FMEA)



### SESSION 3: ANALYSE THE PROJECT (A) / 3 Days

- ◆ Statistical Root Cause Analysis
- ◆ Hypothesis Testing
- ◆ Advanced Graphical Analysis
- ◆ Regression Analysis
- ◆ Lean Enterprise - Value Stream Mapping (VSM)
- ◆ Process Flow Analysis

### SESSION 4: IMPROVE THE PROJECT (I) / 3 Days

- ◆ Generating Improvement Ideas
- ◆ Evaluating & Selecting Best Solutions
- ◆ Solution & Training Implementation Plan
- ◆ Design of Experiment (DOE)
- ◆ Develop & Execute Pilot Plan
- ◆ Lean Concepts and Error Proofing / Kaizen
- ◆ Cost & Benefit Analysis (ROI)

### SESSION 5: CONTROL THE PROJECT (C) / 3 Days

- ◆ Process Control Plan
- ◆ Standard Operating Procedures (SOP)
- ◆ Statistical Process Control (SPC)
- ◆ Best Practice and Replication Opportunities
- ◆ Process Ownership
- ◆ Dashboard Development

**Additional Curriculum:**  
Project Management & Leadership Skills

Presented By:



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