

GREEN BELT CERTIFICATION IN LEAN SIX-SIGMA

In order to receive *Green Belt Certification* in Lean Six Sigma, the participants will demonstrate knowledge in the following topics:

- Process Focus
 - Identifying Processes and Requirements
 - Value-Creation Processes
 - Support Processes
 - Process Requirements
 - Process Design
 - Process Mapping
 - Process Design for Services
 - Design for Agility
 - Mistake-Proofing Processes
 - Process Control
 - Process Control in Manufacturing
 - Process Control in Services
 - Process Improvement
 - Continuous Improvement
 - Breakthrough Improvement
 - Managing Supply Chain Processes
 - Supplier Certification

- Statistical Methods for Lean Six Sigma
 - Data and Business Decisions
 - Populations and Samples
 - Excel and Excel Add-Ins
 - Displaying Data with Excel
 - Descriptive Statistics & Data Analysis
 - Frequency Distribution and histogram
 - Descriptive Statistics
 - Measure of Central Tendency and Dispersion
 - Visual Display of Statistical Measures
 - Data Analysis Using Pivot Tables
 - Probability Concepts & Distribution
 - Random Variables
 - Expected Value and Variance of Discrete Random Variables
 - Binomial Distribution
 - Poisson Distribution
 - Normal Distribution
 - Exponential Distribution
 - Sampling and Estimation
 - Statistical Sampling
 - Sampling Distributions and Sampling Error
 - Sampling Estimation
 - Confidence Intervals for Mean and Proportion

- Six Sigma DMAIC Methodology
 - Project Organization, Selection, and Definition
 - Organization for Six Sigma Projects
 - People Skills
 - Six Sigma Project Selection
 - Cost of Quality Analysis
 - Quality Cost Classification
 - Pareto Analysis
 - Project Definition
 - High level Process Maps
 - Customer Requirements
 - Critical-to-Quality Characteristics
 - Process Measurement
 - Process Mapping
 - Data Collection and Check Sheets
 - Choosing Sample Size
 - Descriptive Statistics Using Excel
 - Measurement of System Evaluation
 - Metrology
 - Calibration
 - Repeatability and Reproducibility Analysis
 - Process capability Measurements
 - Process Capability Indexes
 - Process Performance Indexes
 - Process Analysis
 - Probability Distributions
 - Sampling Distributions
 - Statistical Inference
 - Root Cause Analysis
 - 5-Why Technique
 - Cause-and-Effect Diagram