



Green Belt Training Curriculum Lean Six Sigma

Module 1: Introduction

- What is Lean Six Sigma?
- How Does it Work?
- DMAIC Model
- Lean and the Eight Forms of Waste
- Roles and Responsibilities
- Project Selection
- Project Contract
- Project Reviews
- Certification Process

Module 2: Lean Thinking

- Five Key Lean Principles
- External and Internal Benefits of Lean
- Lead Time and Process Speed
- Little's Law
- Value-Add and Non-Value-Add
- Process Cycle Efficiency
- Kaizen
- Eight Categories of Waste
- Kaizen Framework
- Change Management

Module 3: Define Phase

- Introduction to Define Phase
- What is a Process?
- Understanding Customer Requirements
- SIPOC
- Process Mapping
- Value Stream Mapping
- Data Collection
- Basic Tools for Define

Module 4: Basic Statistics

- Descriptive Statistics
- Sample Statistics
- Population Parameters
- Graphical Meaning of Standard Deviation
- Meaning of a Distribution



- Discrete Probability Distributions
- Binomial Distribution
- Poisson Distribution
- Continuous Probability Distributions
- Normal Distribution
- Z-values
- Exponential Distribution
- Confidence Intervals
- Confidence Interval for the Mean
- Confidence Interval for Proportions
- Hypothesis Testing
- Two-Tailed Test
- One-Tailed Test
- Decision Errors
- P-values
- Central Limit Theorem

Module 5: Statistical Process Control

- Introduction
- Benefits of Control Charts
- Control Charts for Variables
- X-bar and R Chart
- X-bar and S Chart
- Individual and Moving Range Chart
- Control Charts for Attributes
- p Chart
- np Chart
- c Chart
- u Chart

Module 6: Measure Phase

- Introduction to Measure Phase
- Lean Metrics
- Operational Definitions
- Basic Tools for Measure
- Failure Mode and Effects Analysis
- Measurement System Analysis
- Capability Analysis

Module 7: Analyze Phase

- Introduction to Analyze Phase
- Basic Tools for Analyze
- Basic Regression
- Design of Experiments
- Full Factorial Designs
- Fractional Factorial Designs



Module 8: Improve Phase

- Introduction to Improve Phase
- Basic Tools for Improve
- Reducing Complexity
- Visual Management
- 5Ss
- Set-up Time Reduction
- Kanban System
- Standard Operations
- Total Productive Maintenance
- Continuous Flow
- Single Minute Exchange of Die (SMED)

Module 9: Control Phase

- Introduction to Control Phase
- Basic Tools for Control
- Error Proofing

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