



SIX SIGMA
CERTIFICATIONS

LEAN SIX SIGMA GREEN BELT TRAINING



ABOUT LSSGB

Six Sigma is a management strategy originally developed by Motorola, USA in 1979. As of 2010, it enjoys widespread application around the globe, across all sectors.

Six Sigma is focused on improving the predictability of:

- Revenues
- Profits / Cash Surplus
- Cash Flows
- Internal and External Customer Satisfaction
- Quality of Services and Products
- Achieving your, your department's, your organization's goals
- Solving your, your department's, your organization's problem

Lean is a management strategy that strives to optimize processes with a focus on delivering more and more value to your customers. In today's fast paced life, Lean helps deliver quick improvements and results. Lean has gained popularity around the world for its simplicity, and the ability to deliver quick benefits.

COURSE AGENDA

1. LIFECYCLE OF A LEAN SIX SIGMA CERTIFICATION WORKSHOP

- Lean Six Sigma Green Belt Course
- Lean Six Sigma Black Belt Course

2. OVERVIEW OF LEAN SIX SIGMA

- Industry Snippets
- What is Lean Six Sigma?
- Why is it So Successful?
- Lean vs. Six Sigma
- When to use Lean or Six Sigma and When not to use?
- When do Individuals and Organizations Fail using Lean and Six Sigma?

3. PERSPECTIVES OF LEAN SIX SIGMA

- Historical Perspective
- Mean vs. Variation
- Statistical Perspective
- Quantitative Perspective
- Customers Perspective
- Operational Perspective

4. RECOGNIZE PHASE

- RDMAIC Phases
- Strategic Priorities
- Core Processes
- Business Processes at a Clinical Research Organization
- Business Processes for a HR Department
- SWOT Analysis
- A Sample SWOT Analysis Matrix
- Exercise - SWOT Analysis

- Customer Complaint Analysis
- VRIO Analysis
- VRIO vs. Strategic Competitive Edge
- Effort – Impact Analysis
- Business Perceptions and Feedback

4.5 CASE STUDY - I

- Increasing Effectiveness by Understanding & Managing Perceptions

4.5 CASE STUDY - II

- Roadmap for Increasing HR Department's Contribution to the Strategic Priorities

5. DEFINE PHASE

- Understanding Define Phase
- Creating the project Charter
- Defining the problem statement
- Define Process Boundaries
- Process Model Worksheet
- C-O-P-I-S
- Voice of the Customer (VOC)
- What is a CTQ?
- Define CTQ's
- Translation Worksheet
- Selecting Output Measures
- 9310 Analysis
- Value Stream Mapping
- Deliverables for Define phase

6. PRIMER ON STATISTICS

- Statistics – Do I already use it
- Descriptive vs. Inferential Statistics
- Sample vs. Population
- Probability of Error
- Sampling Strategy
- Summarizing data collected for a sample
- Measures of central tendency
- Measure of dispersion
- The Shape of a distribution
- Normal Distribution
- Calculating 'Z' Value
- Probability Calculations
- Correlation Analysis
- Regression Analysis

7. MEASURE PHASE

- Understanding Measure Phase
- Objectives of Measure Phase
- Selecting Project Y
- Plan for Data Collection:
 - Establish data collection goals
 - Develop Operational Procedures and Definitions
 - Collect Data and Monitor Consistency
- Describe and display Variation
- The shape of a distribution
- Understanding variation
- Process Capability
- A Six Sigma capable process
- A bridged process sigma table
- Mean Shift
- Change in process capability because of long term variation
- Observe Processes
- Measure through Time Value Map

- Use Pareto Charts to prioritize and/or analyze
- See trends through Run Charts
- Calculate Control limits
- Processes not in Statistical Control

8 ANALYZE PHASE - SEVEN QC TOOLS

- Check sheets
- Scatter diagrams
- Cause and Effect diagrams (CE, Fish bone or Ishikawa diagrams)
- Histograms
- Pareto charts
- Run charts
- Process Behavior & Control Charts

9. ANALYZE PHASE - LEAN TOOLS

- History of Lean
- Pillars of TOYOTA Production System
- Value add vs. Non-Value add
- Lean as a differentiator
- Lean and Business
- MUDA - Seven Ways
- Value Stream Mapping
- Kaizen
- Kaikaku
- Continuous Flow
- Pull Production
- Kanban
- Visual Management
- Heijunka - Leveling
- Heijunka - Sequencing
- Heijunka - Stability or Standard Work
- Jidoka (Autonomation)
- 5S - Sort, Set in Order, Shine, Standardize, Sustain
- Poka - Yoke
- Quick Changeovers
- Single Minute Exchange of Die

10. ANALYZE PHASES

- Understanding Analyze Phase
- Find the Xs that drive variation
- Two methods for identifying causes
- Cross Functional Flowchart
- Threads of similarity
- Opportunities for error
- Scatter plots
- Benchmarking
- Risk Analysis & Mitigation
- S.W.O.T. Analysis
- PEST Analysis

11. IMPROVE PHASE

- Understanding Improve Phase
- Identify Solutions
- Prioritize Solutions
- Pilot Solutions
- Refine Solutions
- Justify Solutions
- Decision Matrix
- Impact-Effort Matrix
- Cost Benefit Analysis

12. CONTROL PHASE

- Understanding Control Phase
- Plan and Implement Solution
- Create Implementation Plan
- Control Charts
- Audit Plan
- Project Documentation
- Close Project

13. DESIGN FOR SIX SIGMA

- DMADV
- DMADOV
- Design for X
- Special Design Tools

14. MINITAB

- Introduction
- Graphical Representations
- All Statistical Tests
- Capability Analysis
- Control Charts
- Quality Companion

REQUIREMENTS :

In order to achieve the professional designation of IASSC Certified Green Belt (ICGB) from the International Association for Six Sigma Certification candidates must sit for the IASSC Certified Lean Six Sigma Green Belt Exam and achieve a minimum score of 385 points out of a total 500 points. There are no prerequisites required in order to sit for the IASSC Certified Lean Six Sigma Green Belt Exam.

PREPARATION

For those who wish to sit for the exam it is recommended, but not required, that Lean Six Sigma training is obtained through a qualified institution, Lean Six Sigma trainer or corporate program. It is also recommended, although not required, that those sitting for the exam have some degree of real-world Lean Six Sigma work experience and project application experience.

CONTACT US

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