iCert Global Learning Pvt. Ltd.

Fact Sheet :Lean Six Sigma Green Belt(Quality Management)

Course Description:

Green Belt certification works best with individuals who want to work within the Six Sigma framework as team members. Green Belts place heavy emphasis on DMAIC which stands for defines, measure, analyze, improve and control.

The Lean Six Sigma Green Belt course aims to prepare you to perform the role of a Lean Six Sigma Green Belt. The comprehensive curriculum covers everything within the Lean Six Sigma D-M-A-L-C body of knowledge and problem solving strategy is demonstrated throughout the course. Various statistical and business improvement tools help you to understand the flow and process of the methodology.

Lean Six Sigma Green Belt provides the Project Management skills necessary to successfully complete DMAIC projects, including basic knowledge of planning and estimation techniques, Business Case development, team problem solving methods and improvement strategies.

A true Return On Investment can only be demonstrated through successful projects, aiming at reducing the cost of poor quality, increasing process capability, minimizing process cycle time, removing waste and ultimately resulting in increased customer satisfaction.

LearningObjectives:

Individuals certified at this level will have demonstrated their understanding of:

- Understand the concept of Six Sigma and the DMAIC approach to process improvement.
- Understand the tools involved in the Define, Measure, Analyse, Improve and control phases.
- Understand the use of the tools in characterizing processes, analyzing process data, solving problems and controlling processes.
- Use the key tools to solve practical business problems
- Lead small Six Sigma project teams or assist Black Belts to deliver tangible business results on larger projects.

Course Outline:

- Objectives of the training and reminder of the DMAIC cycle Define
- Problem Definition
- Voice of the Customer and Voice of the Process
- Lean Six Sigma Project Management
- Project Selection
- Project roles and responsibilities
- Lean Six Sigma and Project Management notes on Integration

- Lean Six Sigma Business Case
- Overview of Probabilistic approaches (Planning and Business Case)

The Define Phase

- The Business Case Project financial indicators (ROI, NPV)
- The Business Case Probabilistic Models (Crystal Ball exercises)
- Probability introduction
- Probability models (and their use for process improvement and design)

Measure

- Measurement Information Model
- Selecting the right metrics
- Sampling basic concepts
- Yield and Defects Process capability measures
- Developing a Process Baseline
- The Measure phase
- Reminder (measurement framework and metrics identification)
- Descriptive statistics
- MINITAB Exercises (Creating a process baseline) graphical tools
- Z transformation

Analyze

- Process Value analysis
- Value stream mapping
- Root Cause Analysis
- process decomposition
- Cause and Effect Matrices
- Exploratory Data Analysis (EDA)
- Inferential Statistics for Root Cause Analysis (overview)

The Analyze Phase

- Root Cause Analysis (reminder)
- Estimation (point estimation and confidence intervals)
- The Central Limit Theorem (CLT)
- Hypothesis Testing Introduction
- Hypothesis Testing Examples and MINITAB Exercises
- Hypothesis Testing on Continuous Normal Data (Z and T tests, tests for variances..)
- ANOVA Analysis of Variance
- Non Parametric Tests
- Tests for discrete variables (proportions, Chi-square)
- Correlation Analysis and Correlation indexes (Pearson, Spearman)
- Regression Analysis overview and exercises
- Measurement System Analysis (MSA / Gage R&R)

Improve Phase

- Generating Solution Ideas
- Brainstorming (Six Thinking Hats)
- Process Improvement strategies
- Lean Principles
- Selecting Solutions
- Risk Management
- Pilot Projects
- Improvement qualification (quantifying improvements)

The Improve Phase

- Reminder
- Improvement qualification
- Change management in the improve phase – The role of Green Belts

Control Phase

- Sustaining improvement
- Statistical Process Control (SPC)
- Control charts
- Statistical Process Control
- SPC applicability and interpretation
- Conclusions and Next Steps

Target Audience:

- IT Professionals
- Business Professionals
- Engineers
- Operations Managers
- Business Professionals from Financial, Government, Healthcare, Manufacturing, Education and Supply chain industries.
- Internal Consultants
- Change Agents
- Project Managers
- Team leaders and Team Members

Prerequisites:

Together with the content of the 2 day Lean Six Sigma Yellow Belt module, the main focus of the full Five days is on the application of Lean Six Sigma DMAIC methods to real life improvement projects within the delegate's own organization. While the Yellow Belt training is intended to provide an overview of the methodology sufficient to participate as Project Contributors, Green Belts are required to lead at least one project, as part of the certification requirements.

Support will be provided during the course to help delegates identify a suitable Lean Six Sigma project, however delegates are invited to discuss internally (with a potential Project Champion) and assess in advance project opportunities.

Examination:

Certificate:	Lean Six Sigma Green Belt
Duration:	3 Days
Course Delivery:	Classroom, Live Virtual Classroom
Language:	English

For more details contact

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