LEAN SIX SIGMA GREEN BELT (ASQ SYLLABUS)

Introduction

This Lean Six Sigma Green Belt training teaches and prepares individuals to implement the principles, practices, and techniques of Six Sigma in a support capacity on a Black Belt project team. Green Belts are traditionally Lead process stakeholders and may also be assigned specific process-level improvement projects to conduct on their own—projects that normally do not require the statistical rigor demonstrated by a Black Belt.

This course enables the individual to apply the knowledge and skills learned in this course to in order to ac--complish breakthrough business improvements for their organizations. The Lean Six Sigma methodology is a systematic application that can be applied in service-based, transactional, production-based and health care environments and is focused on achieving significant business results and increased customer satisfaction.

Objectives

- Function as a 'tools application' member of a six sigma project team
- Lead and execute process-level improvement projects
- Collect process data and develop process maps
- Develop statistical hypotheses using simple statistical tools
- Design simple experiments and/or implementation plans that help validate improvement options
- Apply problem solving and quantifiable tools to an improvement project brought to class on the first day.
- Eliminate waste and defects by applying lean and six sigma
- Collect, analyze, and quantify data that enable process improvements
- Learn how to execute the six sigma methodology.
- Work with process owners to ensure process gains are held

Green Belts play a vital role within a Six Sigma initiative as they learn to build on the Black Belt's efforts of data collection and analysis, process mapping and design of experiments—many times even leading their own improvement projects. As a Green Belt you will learn how to use many of the time-tested Lean methodologies with proven Six Sigma problem-solving and statistical tools to contribute to the success of your organization.

Duration

Weekdays (Tues, Thu) | 7pm to 10pm | 3 months | 71 hours

Who Should Attend

Managers, Supervisors, Marketing Executives, Process Owners & Personnel involved in process improvement and assurance.

Entry Requirement

Degree or Diploma holders with at least 2 years of working experience. Participants must have at least one potential project for execution. There is no written exam for this course.

Course Fees

Member: $3,677.45
Non-Member: $4,059.89

All fees stated are inclusive of Registration and Exam Fee & 9% GST

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The Six Sigma methodology is a systematic application that is focused on achieving significant financial results and increasing customer satisfaction. When properly deployed on carefully selected business projects, this methodology can lead to a significant reduction and in many cases, elimination of defects, process waste, and out-of-control processes which translate into dramatic business gains. Green Belts provide value within the organization's Lean Six Sigma framework in a variety of ways. They serve on Black Belt project teams to help collect and analyze data, develop process maps, assist the Black Belt in certain levels of statistical analysis, and develop experimental designs for a particular project. These activities serve to support and accelerate progress in every project - which helps to maximize the organization's return on its investment, and adds capacity to deliver even greater numbers of breakthrough improvement projects throughout the company.

Green Belts are also assigned specific improvement projects to conduct on their own - projects that would not require the statistical rigor demonstrated by the Black Belt. Green Belts are able to conduct these projects within the scope of their normal daily roles. Participants will learn how to direct Lean Six Sigma projects and obtain the maximum improvements from the learned techniques and skills. Learned skills are practices and applied through individual and team exercises. These techniques are also applied to the individual projects. Participants will be able to apply the concepts learned in the class to a business improvement project assigned to them by their management sponsor.

Lean Six Sigma Overview

Define Phase
- Project Charter
- SIPOC

Measure Phase
- Process Mapping
- Introduction to Minitab
- Probability & Statistics
- Measurement System Analysis
- Process Capability
- Confidence Intervals
- FMEA

Analyze Phase
- Cause and Effect
- Basic Tools
- Hypothesis Testing & ANOVA
- Correlation & Regression

Improve Phase
- Introduction to Design of Experiments
- Full Factorial Experiment
- Catapult Exercise

Control Phase
- Piloting and Implementation
- Statistical Process Control
- Variable Control Chart
- Attribute Control Chart
- Control Plans

Lean Management
- Cycle Time Reduction
- 5S
- 7 Waste Elimination
- Kanban, Just-in-time (JIT)
- Kaizen
- Takt time, Line balancing, Standardized work
- Value Stream Analysis

Vollgate and Project Review

Special Note:
Basic statistics is recommended. Basic college-level algebra will be helpful to understand statistical concepts is a minimum. Minitab Statistical Software is required and for learning purposes. A 1-month trial version can be downloaded from the Minitab website during class.

Assessment Method

Project assessment - within 2 months from last day of the course.

On your successful completion of the training; and presentation of a project, participants will be awarded the SQI / ASQ Lean Six Sigma Green Belt Completion Certificate.

Please refer to this URL
https://www.sqi.org.sg/courses/
or QR Code for soft copy
and updated training schedule

Membership Application

Register membership online at **www.sqi.org.sg/membership-join/** or contact us to get the membership application form.

Membership Categories:
~ Organisation membership
~ Individual membership

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