

Six Sigma Green Belt Program

(2 Weeks)

Green Belts are Six Sigma practitioners performing project work and supporting Black Belts on larger projects. Green Belts are trained during a 10-day workshop that covers the fundamental Six Sigma tools that are used on nearly all projects.

This program is designed to provide candidates with both a technical and practical foundation for improving processes.

Program Outline

Week One

- Module 1 What are Lean and Six Sigma?
- Module 2 Lean Six Sigma Deployment
- Module 3 The DMAIC Project Roadmap
- Module 4 Voice of the Customer
- Module 5 Quality Function Deployment (QFD)
- Module 6 Project Selection
- Module 7 Value Stream Mapping
- Module 8 Process Mapping
- Module 9 Process Analysis Maps
- Module 10 Using Graphical Data
- Module 11 Work Sampling
- Module 12 Kaizen
- Module 13 Root Causes of Waste
- Module 14 Takt Time
- Module 15 Lean Layout
- Module 16 Constraint Analysis
- Module 17 Change Management
- Module 18 Standard Work
- Module 19 Flow and Pull Systems
- Module 20 Mixed Model
- Module 21 Heijunka
- Module 22 Strategic Inventory and Kanban
- Module 23 Setup Reduction
- Module 24 Mistake Proofing
- Module 25 5S (Visual Workplace)
- Module 26 Benefit Capture
- Module 27 Planning for Next Steps

GOALS (Week One)

- To create an understanding of Lean Six Sigma program implementation.
- To introduce and apply key Lean tools.
- To learn the DMAIC project roadmap to Lean Six Sigma Projects:
 - Define
 - Measure
 - Analyze
 - Improve
 - Control
- To apply these tools to in-class simulations.
- To understand how to get started on your Lean Six Sigma Project.

COURSE OUTCOMES (Week One)

This training will provide each participant with the ability to:

1. Identify and Define opportunities within their business unit processes to which Lean Six Sigma tools and techniques can and will be applied.
2. Measure and Analyze a process using the Lean Six Sigma methodology.
3. Improve a process using Lean Six Sigma tools and techniques.
4. Control a process by using Lean Six Sigma tools and Realize return on investment from this training to improve the bottom line.
5. Repeatedly apply the Define – Measure – Analyze – Improve –Control (DMAIC) Strategy to produce success stories and improve the corporate scorecard.
6. Communicate at all levels of an organization.
7. Change the culture of an organization.

Week Two

Module 1 Lean Six Sigma...Fundamentals Revisited

Module 2 Making Sense out of Data Using Graphical and Measurement Techniques

Module 3 Measurement System Analysis

Module 4 Drawing Conclusions When Comparing Data Sets

Module 5 Process Control and Process Capability

Module 6 The Control Phase (Realizing and Holding the Gains)

GOALS (Week Two)

- To review and expand on the basic principles of Lean Six Sigma
- To understand and apply Lean Six Sigma tools and concepts, including the DMAIC roadmap, on your project for the purpose of improving the bottom line
- To understand strategies for variance reduction
- Understand the relationship between variation and the cost of poor quality
- Develop an appreciation for the need and use of statistics in process improvement
- Be able to describe a process graphically and numerically
- Be able to use and apply the basic graphical tools and charting techniques

- Be able to conduct a Measurement System Analysis (MSA) to determine the integrity of the data we are getting
- Know what a 2-sample hypothesis test is and be able to use statistical tests and Rules of Thumb to detect shifts in average and standard deviation
- Be able to select the appropriate control chart to use, know how to construct it, and be able to recognize out-of-control symptoms
- Know the difference between process control and process capability, and be able to compute process capability
- Measure the results from your Lean Six Sigma project and understand strategies for holding the gains

COURSE OUTCOMES (Week Two)

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1. Identify and Define opportunities within their business unit processes to which Lean Six Sigma tools and techniques can and will be applied.
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4. Control a process by using Lean Six Sigma tools and Realize return on investment from this training to improve the bottom line.
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Training Style:

Tutoring+ tools & methods utilization + software demo & practice

Participants:

Six Sigma Green Belt Candidates, with or without selected projects.

(We recommend no more than 25 participants in one class.)