



# Six Sigma

**Green Belt Certification** 





Learners from across the globe are taking trainings from the Meritphase and boosting their career.....







# **Six Sigma Introduction**

Six Sigma Green Belts are individuals that work on simple process improvement projects. Traditionally, their job would require less than 50% of their time be focused on Six Sigma projects. However, Six Sigma Green Belt roles and job requirements will vary between companies.

A Green Belt certification is ideal for those that will be tasked with improving existing processes, these could be processes that are not standardized, don't have established metrics or looking to reduce errors or cycle time of those processes.

6Sigma.us offers an internationally-recognized Six Sigma Green Belt training and certification program. As part of our four-week Black Belt option, our Green Belt program may be taken alone or as the first step to earning your Black Belt. In fact, 6Sigma.us was the first organization to offer a program that allowed students with no prior experience to complete the Green Belt and Black Belt programs consecutively to earn an internationally-recognized Black Belt certification.

# **Objective**



#### In This Session

Six sigma is a set of techniques that follows a methodological approach for bringing process improvements by aligning organizational goals. Organizations worldwide seek experts who understand the strategic objectives of businesses, critical requirements and operational goals to drive improvement.

Every service industry/organization seeks for process experts with Six Sigmatechniques to be a leader in the competitive market.

The Six Sigma Green Belt Expert training course is designed to provide knowledge and skills to become a successful Process excellence expert. It starts with the fundamental concepts of Understanding VOC, Converting them into potential projects, Base-lining measure to advance topics of Analyzing data, Improving process/ metric and ensure consistency.





#### This Lean Six Sigma Green Belt certification is most suited for:

- Quality System Managers
- Quality Engineers
- Quality Supervisors
- Quality Analysts, and Managers
- Quality Auditors
- Process development engineer
- Lead manufacturing engineer
- Operating system specialist
- Senior IT project manager
- Business process analyst
- Individuals who want to learn and practice Lean Six Sigma Principles
- Lean Six Sigma consultant



# The goal of this training is to:

- Increase your knowledge of Process Management, Six Sigma and Lean techniques as Business Process Improvement methodologies.
- ❖ Increase your skills at improving the ease and performance of the processes in which you work.
- To gain an understanding of your role as a process team member for the achievement of business success.
- To select and improve one of the process you either own or work in.



### **OUTCOME**

- ❖ Know and apply the basic concepts
- ❖Demonstrate use of the terminology
- Understand process inputs and outputs
- ❖ Understand process flow and know what determines value add vs. non-value add
- Understand how the processes you are a part of fit into the larger set of processes needed in delivering value to the customer
- Create a detailed Process Map of a process you are personally involved in.
- Improve a process you are personally involved in using Process Management, Six Sigma methods and Principles to improve its performance.

#### **Course Outline**



#### **Chapter 1: Introduction to "Green Belt Six Sigma"**

- Background
- What Is Six Sigma
- Parameters
- Five Phases
- Road maps for DfSS
- Basic failure mode and effects analysis (FMEA)
- Design FMEA and process FMEA

#### **Chapter 2 : Six Sigma Terms**

- DPMO
- Variation
- Process Capability
- Defect
- Unit
- Yield

#### **Chapter 3: Define Phase**

- Project Charter
- Current State Mapping
- Kano Model
- Stakeholder Analysis
- Voice Of The Customer
- Project Management Basics
- Management and Planning Tools
- Business Results for Projects
- Team Dynamics and Performance



#### Chapter 4: Measure Phase

- •Data Collection Plan
- Prioritization matrix
- Sampling
- Failure Mode & Effect Analysis
- Process Capability & Process Sigma
- Process Analysis and Documentation
- Probability and Statistics
- Statistical Distributions
- Collecting and Summarizing Data
- Measurement System Analysis (MSA)

#### Chapter 5 : Analyze Phase

- Brainstorming
- Cause and Effect diagrams
- •Control Charts & Frequency Plot
- Process Capability Analysis
- Pareto Charts
- Hypothesis Tests
- Regression Analysis
- Exploratory Data Analysis
- Hypothesis Testing

#### **Course Outline**



# **Chapter 5 : Analyze Phase**

- Brainstorming
- Cause and Effect diagrams
- Control Charts & Frequency Plot
- Process Capability Analysis
- Pareto Charts
- Hypothesis Tests
- Regression Analysis

# **Chapter 6: Improve Phase**

- 1. Identifying Possible Solutions
- Brainstorming
- 2. Selecting Solutions to implement
- Weighted Criteria Matrix
- 3. Implementing Improvements
- Gantt chart
- 4. Evaluating The Improvements
- Design of experiments
- Mistake Proofing

## **Course Outline**



## **Chapter 7: Control Phase**

- Control Charts
- Assessing the Final process Capability
- Quality Control
- Control Plan
- Standardization
- Statistical Process Control (SPC)
- Control Plan
- Lean Tools for Process Control

## **Chapter 8 : Six Sigma Deployment**

- C&E Matrix
- Waste Identification Methods to Reduce Waste
- Introduction to Statistics and Graphical Analysis
- Graphical Analysis with Minitab
- Statistical Process Control (SPC)
- MSA Exercise





# **Chapter 9: Multi-Vari Studies**

- T-Test / ANOVA
- Project Presentations
- Correlation & Regression
- Chi-Square
- Multi-Vari Case Study
- Intro to DOE
- Mistake Proofing
- Documentation

# Some of Our Valued Clients









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