

Lean Six Sigma Yellow Belt

Duration: 1 day; Instructor-led

WHAT YOU WILL LEARN

Lean six sigma is all about how we can improve the efficiency and effectiveness of our delivery to our customers. Two factors that always inhibit optimum performance of a process performance are waste and variation. We will look at the key tools that can be utilized to effectively eliminate waste and variation. Here a structured methodology combining the tools of lean and six sigma will be used to increase the end to end performance of a process in order to deliver a high-quality product or services to the customers. This program is delivered through classroom training with extensive sharing of real-life examples and case studies, simulation game, group activities, individual reflection activities and video presentation.

AUDIENCE

- The management team of organizations who intend to implement and practice Six Sigma.
- Professionals who want to learn and implement the six-sigma methodology
- Future managers including management students.
- Quality Assurance Engineers, Project Managers, Team leaders, Software Professionals, Practitioners, Software Quality Assurance team members and Senior Management

METHODOLOGY

The classroom version of LSS Yellow Belt conveys required knowledge and a set of skills to students via interactive lecture, group activities, process and tool stimulations, individual activities and the application of what has been taught to students, to a real improvement project example in the workplace.

Trainers challenge and encourages students to stretch themselves, and support them in this regard, so they can extract the most value from the experience.

COURSE OBJECTIVES

- Communicate using Lean Six Sigma concepts
- Gain an overview of Six Sigma and how to use basic problem-solving tools.

- Understand DMAIC for operational and transactional processes.
- Learn how to use data and basic statistics.
- Relate Lean Six Sigma concepts to the over all business mission and objectives.
- Use the concept of a Sigma Level to evaluate the capability of a process or organization.
- Establish the structure that supports and sustain Lean Six Sigma Quality.

OUTLINES

Module 1: Introduction

An overview of Lean Six Sigma and the benefits to the organization. Introduces the evolution of Lean Six Sigma and the critical benefits to the organization and to stay competitive in current market condition. It includes topics such:

- Introduction & History of Lean Six Sigma
 - An introduction into the evolution of Lean and Six Sigma.
- The roles and responsibilities in a Lean Six Sigma Project
 - The various key roles involved in a Lean Six Sigma project to ensure success.
- Managing results
 - How to increase the Quality and Acceptance of the project with stakeholders?
- What is LEAN?
 - Understand the fundamental goal of LEAN.
- What is Six Sigma?
 - Understand what variation in a process is all about.
- Lean Principles
 - Understand the 5 principles of Lean.
- Lean vs Six Sigma
 - Understand the strengths of Lean and Six Sigma.

Module 2: Define

Fully defines the project objectives and the business process being addressed. It outlines in detail the critical components a project leader must consider establishing a project base. The objective is to create a common understanding and shared support for the project. This is to ensure appropriate foundation is established at the beginning of the project. The key topics covered in this phase include:

- Project Charter
 - It is a major deliverable from the Define phase. Understand the key components of the project charter to establish the project foundation.
- Map Process – SIPOC

- Identifies all the elements of a Process Improvement project before it begins. Provides a deep understanding of the current process.
- Map Process – Flowcharts
 - Identify the complexity of the process and communicate the focus of problem solving.
- Voice of Customer & CTQ
 - The technique of identifying customer wants and needs which is an important component to a successful Lean Six Sigma project.

Module 3: Measure

It measures the current performance of the business process and its variation. The objective is to understand how to identify and prioritise process measure and use them to summarize the current performance, understand how to obtain high quality data and apply key statistical concepts are used to gain insight from data. The key topics covered in this phase will include:

- Fishbone Analysis
 - A brainstorming technique to identify all possible problems and their causes.
- 5 Why's technique
 - A technique used to breakdown the possible cause to a more specific cause.
- X-Y Matrix
 - An effective matrix that is used to indicate the relationship between the possible causes and the problem.
- Data Collection Plan
 - Understand a systematic way to collect data to validate the possible causes.
- Baseline Performance
 - Understanding of different charts to measure the current average level of performance and that you will compare to future performance.

Module 4: Analyze

To establish root causes or key drives of the current process performance. The objective is to clearly state where the team intends to focus its improvement effort and why. To agree the key causal factors for the stated problems in order to ensure agreement within the team and with the key stakeholders. The key topics covered in this phase will include:

- Introduction to Lean Thinking & Kaizen (PDCA)
 - Understand the core elements of Lean Thinking and Continuous Improvement.
- Lean Methodology & How Lean Works
 - Understand how Lean works and its benefits to process improvement.
- Lean Principles – Value Add and Non-Value Add
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- How to understand the value add and non-value add activities in the process from the customer perspective?
- Value Stream Mapping
 - To understand the process of the production flow from a raw material into the arms of the customer and capture the knowledge of the process successfully.
- 8 types of Waste
 - What is waste and how to identify them.
- 5S + s (safety)
 - Understand about a systematic method to organize and standardize your workplace.
- Spaghetti Diagram
 - A technique used to identify areas in the physical layout that needs to be streamlined to reduce waste.

Module 5: Improve

To use idea generation techniques to produce a large number of potential improvement ideas. The objective is to systematically evaluate and select appropriate solution to the causal factors identified. The key topics covered in this phase will include:

- Solution Brainstorming techniques
 - The different kinds of brainstorming approaches to generate ideas.
- Solution Selection
 - The typical considerations to consider when selecting solutions.
- Poka Yoke
 - The technique to improve the robustness of the proposed solution.
- Validate the Improvement
 - To confirm results and provide evidence that the new process is an improvement over the old.

Module 6: Control

Test and make solutions robust and ready for implementation. To ensure improvement is fully embedded in the normal operation and delivering expected benefits. The key topics covered in this phase will include:

- Control Plan
 - Understand the key components (SOP, Training, tracker, audit, etc) need to be monitored and controlled to sustain the improvement.
- Handover
 - Understand the process of officially handing over the project to the stakeholders.
- Closure of Project and Recognize Team
 - How to officially close a project and reward the team