

Lean Six Sigma Yellow Belt

Lean Six Sigma Overview

Lean Six Sigma is a business management system that allows organizations of all types to drastically improve their bottom line by creating, measuring, and monitoring everyday business activities that in turn leads to reduced waste, fewer mistakes, and increased customer satisfaction. Lean Six Sigma helps you focus on proactive solutions that will keep problems from happening in the first place. While Lean Six Sigma is designed to improve processes and increase customer value, the reason it is so successful is that it provides immediate and measurable results to your company's bottom line. The power of Lean Six Sigma is that it is not just a high level philosophy, but also includes a structured set of tools to help you ask the tough questions, get to the root causes, and find permanent solutions to any problem or opportunity. You will benefit from Lean Six Sigma if you:

- Need to reduce costs and improve margins
- Want to move from constant firefighting to doing it right the first time
- Want to get your entire organization involved in reducing errors, improving processes, and focused on the customer
- Want a program that will develop new skills and competencies across the entire organization
- Need to improve processes that are keeping you from growing
- Want a common language and set of tools that will enable a culture of continuous improvement
- Need a consistent and repeatable problem solving methodology

Yellow Belt Course Overview

This two-day introductory Yellow Belt course is the foundation program of Lean Six Sigma and its methodologies. The main goal of the Yellow Belt course is to provide an introduction to Lean Six Sigma and how it can be used by individuals and teams to improve customer satisfaction, reduce errors, increase efficiencies, and work more effectively with teams to solve problems. With this foundation of knowledge and skills, participants can progress to more advanced levels of LSS.

Learning Outcomes

Upon completion of this course you will:

- Understand the history and background of Lean Six Sigma

- Know how to participate in Lean Six Sigma projects that deliver meaningful results
- Be able to use several key Lean Six Sigma Tools
- Understand the DMAIC problems solving methodology
- Understand the Crimson Corporation Process Improvement Roadmap®
- Be able to make process improvements in your work area
- Understand the importance of “soft skills” in a LSS project

Format

- The course is generally taught in two consecutive days in a classroom setting. It is designed to be extremely interactive and has a mix of learning methods including lecture, simulations, individual and team exercises, and videos.

Materials

- A Yellow Belt workbook created by Crimson Corporation will be provided and will be the main instructional document used during the course. There are additional books and reference material used in the class and will be provided. All instructional material is the Intellectual property of Crimson Corporation.

Class Size

- Minimum of twelve (12); maximum of twenty-five (25)

Audience

- All industries and types of organizations
- Individuals and organizations just getting started with Lean Six Sigma or want know more about it
- Project leaders or team members who will be working on improvement projects

Prerequisites

- Students need no prior experience with Lean Six Sigma to attend this course

Certification

- A certificate of completion for 15 professional development hours will be issued to all participants who successfully complete the program requirements

Key Terms

Students will gain confidence understanding these terms and Lean Six Sigma concepts:

- DMAIC process improvement methodology
- Project charter
- Voice of the customer
- Swim lane process map
- Fishbone root cause analysis tool
- 5 Why root cause analysis tool
- Pareto charts
- Graphical analysis tools
- Measurement systems analysis (MSA)
- Measurement plan development
- Hypothesis testing
- Control Charts
- Lean principles
- 7 Wastes
- 5S
- Kanban
- Kaizen events
- Continuous flow processes
- Value stream maps

Course Outline

Day 1

Section 1: Lean Six Sigma Overview

- History of quality
- History of Lean and Six Sigma
- Goals of Lean Six Sigma
- Process improvement overview
- Process variation overview
- Operational enemies of Lean
- Design for Six Sigma
- DMAIC
- Soft skills for Lean Six Sigma
- Implementing Lean Six Sigma
- Organizational change management
- Lean Six Sigma belt levels (White, Yellow, Green, Black)

Section 2: Define the problem/opportunity

- Understand how to identify improvement opportunities
- Collect Voice of the Customer data
- Develop a Project Charter
- Create high level “As Is” process maps

- Plan the project

Section 3: Measure the problem/opportunity

- Understand the current process
- Create a measurement plan
- Perform a Lean Assessment
- Execute the measurement plan
- Validate measurement systems

Day 2

Section 4: Analyze the problem/opportunity

- Analyze the data
- Analyze the process
- Identify variances between current state and goal
- Perform root cause analysis
- Perform hypothesis testing

Section 5: Improve

- Determine potential solutions
- Test/pilot solutions
- Update process maps and standard operating procedures (SOPs)
- Create a rollout plan
- Implement the final solution

Section 6: Control

- Develop and implement a control plan
- Validate achievement of goals
- On-going tracking and reporting
- Institutionalize the improvements
- Rewards and recognition

Section 7: Lean

- Lean background
- Introduction to Lean tools
- 7 Wastes
- Value stream mapping
- 5S
- Kaizen
- Pull systems