



Course Title:

Six Sigma Yellow Belt: Transforming Processes and Results

16 Hours (3 Modules + Daily Review & Engagement Activities)

Course Overview

This course introduces participants to Lean Six Sigma fundamentals, tools, and mindset. It focuses on reducing variability, eliminating waste, and driving continuous improvement. Participants will learn structured problem-solving techniques, customer-focused strategies, and leadership skills to enhance process efficiency and quality.

Learning Objectives

By the end of this course, participants will be able to:

- Understand Lean Six Sigma principles and their application across industries.
- Apply Six Sigma tools to analyze and improve processes.
- Develop effective problem statements and identify root causes.
- Recognize the importance of customer voice and quality culture.
- Use DMAIC methodology for structured problem-solving.
- Prioritize solutions and sustain improvements.



Course Syllabus

Module 1: Six Sigma & Lean Fundamentals (5 Hours)

- **Topics:**
 - History of Six Sigma and Lean
 - DMAIC vs DMADV
 - Industry Examples
 - What is Six Sigma? (DMAIC Framework)
 - Calculating Six Sigma
 - Common Six Sigma Principles
 - Decision-Making With and Without Six Sigma
 - Sigma Level Is Not a Final Indicator
 - What is Lean? (Value vs. Waste, Banana Analogy)
 - Lean Principles & 8 Wastes (TIMWOODS)
- **Activities:**
 - Puzzle Production Line Simulation
 - Banana Waste Identification Exercise
- **Key Takeaways:**
 - Six Sigma = Reduce variation
 - Lean = Eliminate waste
 - Continuous improvement mindset
 - Decision-making with data

Module 2: Basic Six Sigma Concepts (5.5 Hours)

- **Topics:**
 - Six Sigma Tools & Metrics (FTY, RTY)
 - Pareto Principle (80/20 Rule)
 - Voice of the Customer (VoC) & Critical to Quality (CTQ)
 - Challenges in Lean Six Sigma Implementation
- **Activities:**
 - Scrabble Game for FTY & RTY
 - VoC to CTQ Tree Exercise
 - Lean vs. Six Sigma Sorting Challenge
- **Key Takeaways:**
 - Data-driven decision-making
 - Customer-centric improvements
 - Prioritizing efforts for maximum impact



Module 3: Problems and Processes (5.5 Hours)

- **Topics:**
 - Crafting Effective Problem Statements
 - Six Sigma and Other Formal Quality or Process Improvement Programs
 - 5 Whys Root Cause Analysis
 - Understanding Processes ($Y = f(X)$)
 - SIPOC Overview
 - Process Ownership & Critical Success Factors
 - Cost of Poor Quality (COPQ)
 - Solution Prioritization Matrix
- **Activities:**
 - Problem Statement Workshop
 - 5 Whys Application
 - Solution Ranking Exercise
 - DMAIC or A3 Worksheet
- **Key Takeaways:**
 - Strong problem definition leads to better solutions
 - Root cause analysis prevents recurrence
 - Quality is critical for success

Assessment & Certification

- Active participation in activities and discussions
- Completion of exercises
- Certificate of Completion: **Yellow Belt**

Resources

- Course slides and handouts
- Support resources: sixsigmaindy.org/yellow



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Yellow Belt Course Curriculum
